SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA
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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Visvesvaraya Technological University (VTU) named after Bharat Ratna Sir M. Visvesvaraya, was established on 1st April 1998, as per the VTU Act 1994 of the Government of Karnataka.

The University has its head office situated at Belagavi in the northern part of Karnataka, with 120 Acres 2 Guntas of sprawling green campus with a state of the art infrastructure, named as 'Jnana Sangama'.

The jurisdiction of the VTU encompasses the entire state of Karnataka bringing all engineering colleges in the state under a common umbrella. The university operates through its four regional centres located at Belagavi, Bengaluru, Kalaburgi and Mysuru. The UGC has recognized VTU under section 2(f) and 12(B) of the UGC Act 1956.It is one of the three affiliating Technological State Universities in the country to receive World Bank assistance under TEQIP 1.3 Scheme.

Academic Profile:

The VTU is one of the largest technological Universities in India having **214** affiliated Engineering colleges, **18** Autonomous Colleges and **1** Constituent College. It imparts quality technical education to more than 4 lakh students throughout the state through its **30** Undergraduate & **76** Postgraduate Programs. It also offers Doctoral programs(Ph.D) and M. Sc. (Engg.) programmes in its four PG Centres and some of the affiliating colleges having "Research Centers". Every year the VTU is conferring around 60,000 Under Graduate degrees, 25000 Post Graduate and around 200 Doctoral Degrees. The focus of the University is to promote planned and sustainable development of technical education.

Programes at the University PG Centres:

The University offers 17 PG and Ph.D. programmes under 6 disciplines at four PG Centres viz Belagavi, Muddenhalli, Mysuru and Kalaburgi through its 7 Departments. Link to Programme: https://vtu.ac.in/en/vtu-pg-centres-programme.

VTU has undertaken the following initiatives

- Introduced robust industry driven curriculum
- Introduced innovative Digital evaluation system
- Adopted Choice Based Credit System (CBCS).
- Biofuel Centre, VTU Belagavi
- Digital Farming Centre VTU, Belagavi
- Advanced Labs at VTU-National Academy for Skill Development Dandeli (VTU-NASD)
- Bosch Rexroth centre of competence in Automation Technology VTU Regional Office, Mysuru
- e-learning Centre
- Visvesvaraya Centre for Nano Science & Technology(VCNST) VTU, Muddenhalli
- Centre of excellence in Aerospace and Defence, VTU Regional Office, Bengaluru

Vision

'To become an outstanding Technological University at the cutting edge of Science and Technology that produces world class Knowledge-delivery, Research, Extension and Leadership in Technology innovation for Industry and Society'.

Mission

'To plan the development of technical education, to establish value-based and need-based education and training in engineering and technology, with a view to generate qualified and competent manpower, responsive to technological and societal needs.'

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. The VTU is one of the premier technological universities from Karnataka. All engineering colleges of the state are affiliated to this university. The technological expertise available with the university is very large encompasing various experts and professionals working in the university/affiliated colleges.
2. The university has been built on the ideals of Sir M Visvesvaraya- engineer-par-excellance. His maxim "Be a Human Being first" (Modalu Manavanagu) is still very relevant and the basis of our motivation and strength.
3. The university offers programmes relevant to societal needs both technical and managerial in nature with quality curriculum. The curriculum is a result of brainstorming of teachers, experts and industrialists. There are academic audits conducted to further strengthen the aforesaid pursuit.
4. The VTU has adopted World-Class knowledge delivery methodology by extensively using ICT tools. The consortium of e-resources, e-Learning and smart laboratories are a testimony to this.
5. The Choice Based Credit System(CBCS) adopted across all programmes run by the Institute, offers a wide choice of professional electives along with core courses making the curriculum academically flexible and enriching.
6. Post Graduates of this University are highly preferred by industry and academia. Graduates of this Institute get preference in getting H-1B visa for higher education and employment.
7. The VTU has consistently been in the top six positions amongst all the Universities in Karnataka. Its participation in NIRF ranking survey 2019-20 is also highly encouraging. It has secured 80th Position in overall ranking, 55th position in engineering category and 71th position in management category at NIRF survey 2019-20.
8. Complete automation of examination system with unique features like digital delivery of question papers thirty minutes before the commencement of examination to avoid any malpractice. The plagiarism check of PG and Doctoral thesis and Digital Evaluation of Answer scripts has made the examination system totally transparent and tamper proof.
9. Good Infrastructure with green canvas, subsidized education, young and dynamic faculty is accessible to all category students.
10. The University Library has all required and sought after books in the disciplines of engineering and management. The library also provides online access to various e-books, journals, periodicals and other resources.

Institutional Weakness

1. Some of the programmes offered by the VTU are in their infant stage. There is a need to create a brand equity for them especially in the rural belts of Karnataka.
2. The quality of research output needs to be improved, hence more focused efforts in research is needed.
3. The self financing characteristic poses some financial constraints in research funding and endeavours
4. The univeristy does not have multi-racial and multi-cultural presence due to regulatory constraints.

Institutional Opportunity

1. In view of the New Education Policy, there is a scope for sectoral linkages for application of changing technology by introducing new programmes/courses relevant to changing times.
2. The university has scope to collaborate with leading research universities and laboratories in India and abroad.
3. There is a good opportunity to establish incubation/start up centres thereby providing platform for emerging enterprenuers.
4. There is an opportunity for developing a strong research and innovation culture with focus on patents and IPR initiatives.
5. It's large alumni base can act as a catalyst in forging world wide alliances with corporates and educational institutions.

Institutional Challenge

1. To propel the university as a multi-disciplinary institute and to provide a strong leadership in the sphere of technical and management education in view of the New Education Policy.
2. Industry-Academia linkages are to be strengthened for new skill development, placement and practical exposure with changing times.
3. To strengthen the characteristic of a "Learning Organization" through learning, unlearning and re-learning inititatives.
4. The major challenge will be the Global competition, coping with changing technology and meeting the rising societal expectations.
5. Entry of foreign universities and mushrooming private and deemed Universities with solid financial back-up coupled with insatiating apetite to grow.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The VTU has developed a well-defined procedure to design curriculum. All PG Programs have adopted CBCS–Choice based Credit System with all its unique features. The syllabus revision is carried out for PG programmes every two years. All Academic programs are planned to give extensive knowledge to foster creativity, innovation and research aptitude. The curriculum focuses on programme objectives and programme outcomes which are made available to the students through various modes. The course curriculum is made relevant to Local, Regional, National and Global development needs. The institute has entered into MoUs with many Industries, Academia, State/Central Govt Agencies.

Academic Flexibility is introduced in the curriculum by offering open/ professional electives, mini projects, field studies, internship, seminars, assignments, etc.

Curriculum Enrichment is attained by designing core courses to improve employability through communication, analytical and other skills such as – IT and logical reasoning skills. Few of the courses like Water and Land Management, Nanotechnology, and Aerospace Propulsion Technology have bearing on employment. Women cell in the university creates awareness about gender equity and legal rights for women. The university provides value based education through UHV (Universal Human Value cell), NSS, Youth Red cross and Yoga.

The e-Learning centre, established in 2003, at Mysuru is providing technology enhanced learning facilities. It has diversified its activities like live-streaming of courses across all the VTU affiliated institutions through 'e-Shikshana' an e-Learning platform. e-Content development, live streaming of conferences and special lectures are conducted through this mode. It also conducts workshops regularly on IPR, Research Methodology, Placement and training with NPTEL Local Chapter at Mysuru.

The VTU Consortium is established to promote affordable cooperative initiative and to provide national/international journals, publications, e-books to PG centres and affiliated colleges at affordable cost.

Feedback from students, faculty, alumni and experts is obtained in a structured form (offline/online) and forwarded to board of studies for analysis and use for next revision. Open house sessions are conducted at the departmental level and also feedback from visiting dignitaries/experts is obtained. Such feedbacks have helped in improving the quality of curriculum design and implementation in tune with changing needs of the industry and society.

Teaching-learning and Evaluation

All admissions are done through Karanataka Examination Authority (KEA)-Online transparent Admission Process. The institute follows reservation policies of the state government in admissions. Scholarships to students, hostel fee reimbursement and laptops are also provided to SC/ST/OBC students by the university.

The slow and advanced learners are identified on the basis of their performance in entrance examination, internal tests and in mentor groups. Induction programme at the departmental level and interactive session are arranged for supporting slow learners. Advanced learners are encouraged to prepare for competitive and other examinations

Faculty members have adopted ICT tools for teaching-learning process. Various digital platforms, Smart boards, PPT, experiential learning, mini projects, seminars and other such methods are adopted to strengthen the learning process. Teaching methodology is a combination of Lectures, Group Discussions, Case studies, field projects Internship with Industries and presentations by students. All teaching positions are filled as per the norms of the statutory bodies. The faculty members with Ph.D. are permitted to guide the Ph.D. scholars. More than 52% of the faculty members are Ph.D Degree holders and the Student-Teacher ratio is 9:1.

The examination process is completely digitalized with an automated and indegeneously built software at the VTU. Question papers are delivered on-line 30 minutes before the start of the examinations. Malpractices and subjectivity is eliminated through digital evaluation system. The results are declared within 30 days after the examination. I.A. marks are uploaded to the university database with a web based software.

Students grievances regarding examination and evaluation are redressed within stipulated time.

The university has a system of measuring the students' performance and learning outcomes through Continous Internal Assessment (CIA), Semester End Exam (SEE), Internship and final year projects. The Placement support is provided by Placement Committee representing all four regions. About 90% students complete their degree within the normal duration stipulated by the university.

Research, Innovations and Extension

The university has an umbrella of 168 recognised research centres at its PG centres, affiliated, autonomous and constitutent colleges for promoting research. The laboratory facilities are provided to research scholars and plagiarism check is done for PG projects and Ph.D thesis before submission. The publication of research papers, undertaking projects, conducting workshops, attending seminars, workshops etc is encouraged. Research grant is provided by the university under TEQIP 1.3 –World Bank Scheme and other schemes.

Research endeavours are encouraged in the university and its affiliated colleges through funding/financial support provided by the university.

The university has established an e-Learning centre with industry partnership at Mysuru for sharing knowledge across industry and academia. Water conservation, Drip Irrigation and other Water management Programmes are being undertaken under Unnat Bharat Shikshan Abhiyana. Digitital farming setup and Geo-Spatial Technological lab is established in the university Campus. The university is also operating a bio- fuel centre to produce, popularize, train the farmers in the production and use of bio-diesel. The university has focused on developing Go-Green Campus, Solar project and usage of LED bulbs.

An International Journal of Science, Technology, Engineering and Management is published by the VTU to encourage research publications. More than 1000 research articles have been published by our faculty in different peer reviewed journals with high impact factor. The Univeristy has established a Prasaranga Unit to publish technical books in regional language (Kannada) to popularise technical knowledge to common man. Faculty members are also encouraged to contribute chapters and publish books.

VTU has designed and implemented Consultancy policy to encourage the faculty to takeup consultancy and provide solutions to the society needs and problems. As a part of extension activities- 11 (elevan) neighbouring villages are adopted for development through provision of borewells, water management schmes and by participting in gram sabas. The open well is constructed at Santibastwad village situated near the main campus at Belagavi. More than 100 people from surrounding villages are provided employment in the main campus. National Academy for Skill Development at Dandeli in Uttar Kannada District is established to offer skill development training to the youth in the surrounding areas.

Infrastructure and Learning Resources

The university has excellent infrastructure on a sprawling campus with state of the art facilities and learning resources. Smart classrooms, scintillating research laboratories, seminar hall, auditorium, library, sports and all essential resources are available across all the regional centres of the university. Adequate hostel facilities both for boys and girls are provided in the Campus. Other facilities like Primary health centre, Bank, Post Office, ATM and canteen facilities are also available to the staff and students of the university. The university has

procured more than 1000 computers for academic purpose and all the PG centres have WiFi facility. The university has guest houses with ultra-modern facilities in all the regional centres. VTU has adequate vehicles at all the regional centres for providing transport facilities to students and staff.

The VTU has fully automated Library established in all the regional centres. In the main campus a fully automated library is established in the name of Shri. S. G. Balekundri, a renowned engineer of Karnataka. The purpose is to draw inspiration from the work done by Shri. S. G. Balekundri. All PG centre libraries have rich collection of books, journals, e-journals, doctoral thesis, Project Reports and e-Learning resources. The VTU Consortium is a novel initiative of the university, to promote access of e-Resources in its affiliated institutions to get access at affordable cost.

Table below depicts the built-up area at all regions of the VTU:

Belagavi	Muddenahalli	Kalaburagi	Mysuru
63519 Sqm Built up Area	60307 Sqm Built up Area	21048 Sqm Built up Area	44161 Sqm Built

Student Support and Progression

All categories of reservation including SC/ST are admitted as per Government rules and given scholarships and other benefits. Free laptops are distributed to the SC/ST students by the university. Women's cell, Central Placement Cell, Entrepreneurship Development Cell, SC/ST and OBC Cell, Anti-ragging cell are all operational. There is a separate sports complex with Physical Education director-under whose guidance sports activities for all the regions are conducted. Students are encouraged to take up competitive examinations like NET/SET/GATE/TOEFL, civil services, etc. Students also participate in various academic, co-curricular and extra-curricular activities at Regional, National and International levels.

The university has constituted an Alumni association with chapters at Kalaburagi, Mysuru and Muddenhalli regions. A good number of students have registered as members of the Alumni association. The association supports the activities of the VTU by organizing annual alumni meet, guest lectures, interactive sessions, workshops and seminars. Feedback from the Alumni is helpful in the overall functioning of the university.

The students support system includes: counselling, mentoring, remedial classes, training programmes, welfare cell like women study cell, internal compliance committee, etc.

Governance, Leadership and Management

The VTU has a strong supportive leadership which provides governance with vision, dynamism and transparency. There is internal and external audit conducted periodically to ensure smooth functioning of the university. The institution has adopted a balanced development strategy by regularly conducting meetings of statutory bodies and performance appraisal of both Teaching and Non-Teaching staff. There is centralised purchase of equipments and other procurements through e-tendering by the Store and Purchase (SAP) department of the university. Engineering section headed by a resident engineer is established to look after the development and maintenance of infrastructure of the university.

The leadership of the university encourages and supports research and innovation. Internal Quality Assurance Cell (IQAC) is established to take care of the quality initiatives and It is proposed to initiate AAA audit .

Further the Green Audit is already done for Belagavi campus.

The VTU has designed and implemented various policies to bring orderliness and enhancing quality in functioning of the university. These include:

1. Academic Manual

2. Examination Manual

3. Research Policy

4. Student Manual

5. Vision statement 2020 (strategic policy)

6. Enterprise Resource planning (ERP)

7. Finance and Resource Mobilisation policy

8. Consultancy policy

9. Information Technology Policy

10. IPR Policy

11. Anti-Sexual Regulation

NIRF Ranking 2020:

NIRF Ranking	ENGINEERING CATEGORY	MANAGEMENT CATEGORY	UNIVERSITY CA
Rank	55	71	80

VTU Cells:

- NSS Cell
- ED Cell
- SC/ST and OBC Cell
- Youth Redcross cell
- Women's cell
- Grievence Redressal Cell
- UHV Cell
- Central Placement Cell

- Intectual Property Cell
- VTU Free Open Software (FOSS) Group
- Women's Study Centre

Institutional Values and Best Practices

Institutional Values

The VTU motto "Modalu Manavanagu" meaning-'Be a Human Being first' is enshrined in all univeristy endeavours and its work culture. The VTU makes efforts to inculcate values among students. Student Manual creates awareness about duties and responsibilities. The values like human dignity, empathy, gender equity, knowledge sharing and sense of giving are developed to create more enlightened and progressive society. The attitude of caring,sharing and growing is developed amongst the VTU family by organising various activities.

There are consistent efforts by the university officials to maintain salubrious environment within the campus. Few of the inititatives include use of LED bulbs, rainwater harvesting, waste management, use of electrical vehicles within campus, use of bicycles etc.

There are many good practices prevalent in the university. The best two amongst these are as follows:

1. Go Green Inititative: The VTU has taken a number of initiatives to keep the campus green. It has developed lakes, ponds and gardens. Water conservation through sprinkler and drip irrigation facility is practiced in the campus. Plastic free campus and paperless office is our aim.

2. Digital Examination system: The entire examination process is fully digitalized. The unique features of this practice include:

- Online filling of student details, examination forms and hall tickets generation.
- Online QPDS, digital evaluation, CIE marks filling.
- Online evaluation and marks transfer for result processing.
- Plagiarism test for all theses of PG and Research Programs
- Online M.Tech, MBA, MCA and Ph.D thesis evaluation.
- Processing and online declaration of results.
- Photocopy of answer booklets delivered through email to the students.
- Online revaluation application form filling.
- Providing documents soft copies to the students in student login

In-house software is used for this purpose. The process has helped the examination section to improve the functionality of the system.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the University	
Name	VISVESVARAYA TECHNOLOGICAL UNIVERSITY
Address	Visvesvaraya Technological University Jnana Sangama Machhe Belagavi Karanataka 590018
City	Belagavi
State	Karnataka
Pin	590018
Website	vtu.ac.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Vice Chancellor	Karisiddappa	0831-2498112	9845992169	0831-2405467	registrar@vtu.ac.in
IQAC / CIQA coordinator	B.S.Kudachi math	0831-2405468	8660457256	-	vtu.naac@vtu.ac.in

Nature of University	
Nature of University	State University

Type of University	
Type of University	Affliating

Establishment Details	
Establishment Date of the University	01-04-1998
Status Prior to Establishment,If applicable	

Recognition Details		
Date of Recognition as a University by UGC or Any Other National Agency :		
Under Section	**Date**	**View Document**
2f of UGC	24-08-1999	View Document
12B of UGC	02-01-2018	View Document

University with Potential for Excellence	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No

NAAC

Location, Area and Activity of Campus							
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**	**Programmes Offered**	**Date of Establishment**	**Date of Recognition by UGC/MHRD**
Main campus	Visvesvaraya Technological University Jnana Sangama Machhe Belagavi Karnataka 590018	Semi-urban	120.05	63519	MBA,MCA, M.Tech		
PG centre	*Visvesvaraya Technological University PG Center Muddenhalli Advanced Technology Muddenhalli 562101*	*Rural*	*200*	*60307*	*MBA,MCA,M.Tech*	*01-04-1998*	*24-08-1999*
PG centre	*Visvesvaraya Technological University PG Center Mysuru C A Site No 1 Hanchya*	*Urban*	*42.19*	*44161*	*MBA,MCA,M.Tech*	*01-04-1998*	*24-08-1999*

	Satagalli Ring Road Mysuru Karnataka 570019						
PG centre	*Visvesvaraya Technological University Pg Center Kalaburgi Rajapura Kusnoor Road Kalaburgi 585106*	*Urban*	*15.075*	*21048*	*MBA,MCA,M.Tech*	*01-04-1998*	*24-08-1999*
PG centre	*Visvesvaraya Technological University PG Center Belagavi Jnana Sangama Belagavi 590018*	*Urban*	*120.05*	*63519*	*MBA,MCA,M.Tech*	*01-04-1998*	*24-08-1999*

2.2 ACADEMIC INFORMATION

Affiliated Institutions to the University

Type of Colleges	Permanent	Temporary	Total
Engineering/Technology/Architecture/Design	51	163	214

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	1
Affiliated Colleges	214
Colleges Under 2(f)	72
Colleges Under 2(f) and 12B	33
NAAC Accredited Colleges	57
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	18
Colleges with Postgraduate Departments	125
Colleges with Research Departments	896
University Recognized Research Institutes/Centers	168

Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)	: Yes

SRA program	Document
AICTE	109168_5382_1_1597321545.pdf

Details Of Teaching & Non-Teaching Staff Of University

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned				30				42				96
Recruited	17	4	0	21	22	8	0	30	62	31	0	93
Yet to Recruit				9				12				3
On Contract	0	0	0	0	0	0	0	0	9	4	0	13

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned				320
Recruited	171	39	0	210
Yet to Recruit				110
On Contract	22	5	0	27

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned				105
Recruited	14	2	0	16
Yet to Recruit				89
On Contract	16	7	0	23

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	1	0	0	0	0	0	0	0	0	1
Ph.D.	17	4	0	18	8	0	18	11	0	76
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	17	4	0	22	8	0	62	31	0	144

Temporary Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	9	4	0	13

Part Time Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Distinguished Academicians Appointed As

	Male	**Female**	**Others**	**Total**
Emeritus Professor	2	0	0	2
Adjunct Professor	0	0	0	0
Visiting Professor	0	0	0	0

Chairs Instituted by the University

Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	Department of Management Studies	Parisar ChairBelagavi	VTU and Karnataka State Pollution Control Board
2	Department of Management Studies	State Bank of India study Chair Belagavi	SBI Bank

Provide the Following Details of Students Enrolled in the University During the Current Academic Year

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	11	0	0	0	11
	Female	7	0	0	0	7
	Others	0	0	0	0	0
PG	Male	382	4	0	0	386
	Female	388	1	0	0	389
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	Yes
Total Number of Integrated Programme	5

Integrated Programme	From the State where university is located	From other States of India	NRI students	Foreign Students	Total
Male	1	0	0	0	1
Female	2	0	0	0	2
Others	0	0	0	0	0

Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	16-09-2017
Number of UGC Orientation Programmes	11
Number of UGC Refresher Course	0
Number of University's own Programmes	13
Total Number of Programmes Conducted (last five years)	24

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	**Upload Report**
Department Of Aerospace Engineering	View Document
Department Of Applied Science	View Document
Department Of Civil Engineering	View Document
Department Of Computer Science Engineering	View Document
Department Of Electronics And Communication Engineering	View Document
Department Of Management Studies	View Document
Department Of Mechanical Engineering	View Document

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2019-20	2018-19	2017-18	2016-17	2015-16
23	23	22	22	22

File Description	Document
Institutional data in prescribed format	View Document

1.2

Number of departments offering academic programmes

Response: 7

2 Students

2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1319	1226	1550	2077	2237

File Description	Document
Institutional data in prescribed format	View Document

2.2

Number of outgoing / final year students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
596	803	1007	940	759

File Description	Document
Institutional data in prescribed format	View Document

2.3

Number of students appeared in the University examination year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
2664	2872	3758	4407	4290

File Description	Document
Institutional data in prescribed format	View Document

2.4

Number of revaluation applications year-wise during the last 5 years

2019-20	2018-19	2017-18	2016-17	2015-16
73	94	156	193	208

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
566	566	519	519	518

File Description	Document
Institutional data in prescribed format	View Document

3.2

Number of full time teachers year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
144	144	145	145	146

File Description	Document
Institutional data in prescribed format	View Document

3.3

Number of sanctioned posts year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
168	168	168	168	168

File Description	Document
Institutional data in prescribed format	View Document

4 Institution

4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
758	602	675	924	1043

File Description	Document
Institutional data in prescribed format	View Document

4.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
683	712	742	730	730

File Description	Document
Institutional data in prescribed format	View Document

4.3

Total number of classrooms and seminar halls

Response: 65

4.4

Total number of computers in the campus for academic purpose

Response: 1000

4.5

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
11391.92	19507.10	9418.06	11782.86	7104.95

NAAC

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

VTU focuses on providing excellent technical education to cater to the needs of the industry to provide technical man power with practical experience and sound theoretical knowledge. The curriculum is designed and executed as per the guidelines of the statutory bodies such as AICTE, UGC, MHRD and State Government.

To address Socio-economic issues, Karnataka Vision 2020 document, Government policies such as Make in India, Skill India, Digital India, futuristic forecasts about technology changes occupational trends and need for application of technology in agriculture as well as global issues of climate change & sustainability are considered.

Karnataka is known for Information Technology Industries, Aerospace Industries, Construction Technology, Computer Science and Engineering, Industrial Automation Engineering and Business Management Industries. In this context, the courses are designed specifically to meet the needs of these sectors.

The Vision of the university is reflected in the academic programme design and implementation. The university has a well defined procedure to design curriculum for new courses as well as to incorporate changes in existing courses. It reviews curriculum on regular basis with a specific periodicity to achieve its vision and mission.All the academic programs are planned to give extensive domain knowledge to foster creativity, innovation and research aptitude. The University endeavors to provide holistic approach in imparting technical education. It follows a systematic process in the design and development of curriculum, Inputs for curriculum designing are obtained from Faculty, experts in the field drawn from Academia, Industry, Entrepreneurs and other stake holders by regular interaction with them. The frame work is prepared for each subject considering inputs obtained and same is placed before the respective Board of Studies for it’s consideration.A Joint BoS comprising chairmen of all Boards and chaired by Hon'ble Vice Chancellor approves the curriculum, scheme of teaching, evaluation and other related aspects. After the approval of BoS it is sent to Academic Senate for consideration and also to the apex body the Executive council.The University organises workshops to obtain the feedback from faculty members. Curriculum is developed to make it relevant to societal needs-Local, National, Regional and Global. Some of the programmes with relevance is given in the Table below:

Programmes	Relevance
VLSI Design and Embedded Systems	Global and National
Water and Land Management	National and Regional
Nanotechnology	Global, National
Aerospace Engineering	Global, National

Product Design and manufacturing	National, Regional and Local
Computer Science & Engineering	Global, National, Regional and Local
Master of Business Management	Global, National, Regional and Local

Curriculum is based on learning objectives and course outcomes. At present, the university is following choice based curriculum across all programmes. Syllabus revision is carried out for PG programmes every 2 years. To enhance employability and entrepreneurial skill, internship with industry and projects are undertaken by the students for specified duration in each programme ranging from 8 weeks to 16 weeks. The Entrepreneurship Development Cell as well as Placement Cell provides need based training to students. During the internship programmes students get hands-on experience in industry and an opportunity to interact with professionals.

File Description	Document
Upload Additional information	View Document
Link for Additional information	View Document

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 **How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 23

1.1.2.2 **Number of all Programmes offered by the institution during the last five years.**

Response: 23

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Details of Programme syllabus revision in last 5 years	View Document
Any additional information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 92.64

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
542	542	463	461	485

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 40.36

1.2.1.1 **How many new courses were introduced within the last five years.**

Response: 1085

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 2688

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

1.2.2.1 **Number of Programmes in which CBCS / Elective course system implemented.**

Response: 23

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Response:

The university integrates cross cutting issues relevant to environment and sustainability, human values, professional ethics into the curriculum and such courses are studied by the students in various departments.

Water and Land Management is a unique programme offered by the department of civil engineering, provides sustainable solution to the problems of water, soil and environmental management aspects. Most of the courses in this programme focus on environmental protection and sustainability solution. Courses like surface water hydrology, design of hydraulic structures, optimization technique, groundwater hydrology aims to conserve and manage the resources in sustainable manner incorporating the gender aspects. Further, courses like water pollution control, industrial waste water management, global warming and climate change focus on prevention of pollution and conservation of environmental resources optimally.

MBA curriculum provides wide choice of electives, inputs for enhancing skills and employability, self employment and ultimately boost self confidence.

Topics like ethics, personal growth and interpersonal effectiveness, public relationships, entrepreneurship development, CSR, social entrepreneurship, rural development and legal and business environment are included in the curriculum In addition , ethics and value related topics such as Women Entrepreneurship, CSR, Social and. Rural Entrepreneurship, Business Environment provide the related information.

Research Methodology and IPR is the mandatory course for all the programmes. The objective of this course is to explain the art of interpretation, art of writing research reports, various forms of intellectual property, its relevance and business impacts in the changing global business environment.

In addition to the above Women cell conducts various programmes concerning gender sensitivity, equality, women empowerment, woman rights and woman law. Every year a Womens' day celebration is organized to create awareness amongst girl students. It also conducts various competitions.

Curriculum enrichment is achieved under CBCS by giving wide choice of electives to enhance the skills and employability, extension activities, setting programme objective and course outcome, providing practical training through projects and internship with Industry and strong internal assessment system to boost self confidence of the students.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 9

1.3.2.1 **How many new value-added courses are added within the last five years.**

Response: 9

File Description	Document
Institutional data in prescribed format	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 6.04

1.3.3.1 **Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
242	0	95	100	20

1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).

Response: 100

1.3.4.1 **Number of students undertaking field projects or research projects or internships.**

Response: 1319

File Description	Document
List of Programmes and number of students undertaking field projects research projects/ / internships (Data Template)	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: B. Any 3 of the above

File Description	Document
URL for stakeholder feedback report	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

Response: B. Feedback collected, analysed and action has been taken

File Description	Document
URL for feedback report	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Demand Ratio (Average of last five years)

Response: 0.56

2.1.1.1 **Number of seats available year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
1365	1425	1485	1460	1460

File Description	Document
Demand Ratio (Average of Last five years) based on Data Template upload the document	View Document
• Any additional information	View Document

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

Response: 84.58

2.1.2.1 **Number of actual students admitted from the reserved categories year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
666	591	584	695	500

File Description	Document
Average percentage of seats filled against seats reserved (Data Template)	View Document
Any additional information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

The VTU assesses the learning levels of the students at the time of the commencement of the programme. Students enrolled in various disciplines are identified as slow and advanced learners based on their UG marks and the performance in the entrance test conducted by KEA, Government of Karnataka for admission.

The VTU PG Centres organize Orientation programmes/Induction programmes for freshers both at the institution level and at the department level. The facilities in the institution and the scope of the subjects being learnt are introduced in these sessions. Apart from this, sessions also include exercises to inculcate positive attitude and competitive spirit. This process helps as a base for monitoring the future progress of the students. Bridge Courses are conducted at the departmental level to lift the students to the level of advanced learner.

Strategies adopted for slow learners

- Remedial Classes are conducted with an aim to improve the academic performance of the slow learners, absentees and students who participate in sports and other activities. This practice helps the slow learners to improve subject knowledge and helps them to catch up with their peers.
- Group Study System is also encouraged with the help of the advanced learners.
- Academic and personal counseling are given to the slow learners. A group of students are allotted to mentors, who help the students and provide solution to their problems by counselling them.
- University promotes Peer learning by motivating advanced learners to help slow learners.
- Continuous monitoring of academic performance and special education needs are identified by mentors

Strategies for the advanced learners

- Advanced learners are encouraged to enroll in MOOC Courses – Swayam.
- Provision of additional learning and reference material.
- Assignment and Student Seminars on contemporary topics to enable them for placement.
- Research scholars are encouraged to conduct seminars to their peers and juniors.
- The university organizes technical seminars, entrepreneurship awareness programme and innovative projects, competition at departmental level.
- Advanced learners are encouraged to opt for competitive exam like GATE, SET, NET,TOEFL, civil services, etc for advancement of their career.

Advanced learners are also encouraged to take up research on various research projects.

Special Support:

The university supports SC/ST students by giving scholarship, financial aid and laptops for advanced learning. Special encouragement is given for sports, cultural activities organized by NSS, Youth Red Cross to inculcate leadership qualities and also to boost self confidence and team spirit.

File Description	Document
Upload Any additional information	View Document

2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 9:1

File Description	Document
Any additional information	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

The university believes in the adoption of student-centric methods to enhance student involvement as a part of participative learning and problem solving methodology. Student centric Teaching Methods are reflected in project work, Field Visit, Industrial visit, Guest lectures, Role Plays, Team works, Debates, Seminar Quizzes and case studies. Students are encouraged to make presentation in the class to make Teaching and learning more effective. We realize the importance of experiencial learning and learning with fun at the VTU.

Specifically the student centric methodology include

1. Experiential Learning

1.1 Project work

- Project work is organized in two phases

1)Mini project and

2)Major Projects is an essential element of each programme

- Internship or field projects in industry

1.2 Participation in competition at various level

- For real time exposure students are encouraged to participate at National and International level competitions.

1.3 Field Visits

- The faculty identifies and proposes academically significant field visits and surveys for practical learning and exposure.

1.4 Industrial Visits

- The departments plan and organise industrial visits for students to provide exposure on industrial work culture and other practical insights.

1.5 Guest Lecture

- Guest lecture by eminent experts from industry and academics from across the world are organised to supplement the teaching process and provide experiential learning.

2. Participative Learning

2.1 Role play

Teachers adopt role play method especially in management and PG Technical courses to supplement Teaching by way of participative learning

2.2 Team work

All Departments organize students activities to promote the spirit of Team work.

The activities such as NSS, institutional social responsibility through Red Cross,Village Adoption,Tree plantation,Swatchh Bharat and Health awareness camp help the students to learn art of working in a team for Social and community welfare.

2.3 Debates

Debates are followed in various subjects where students are required to come with different opinions, thought processes thus the learning process gets justified in the argumental way of learning.

2.4 Group work

Laboratory experiential learning: Technical education is always justified with the help of practical knowledge. Practical,workshops and group work under the guidance of teachers are also conducted.

3. Problem solving Methodology

3.1 Case studies

Case study method is adopted in teaching learning process to make the students to have logical thinking and practical knowledge to develop problem solving ability. This is commonly adopted in management programmes as well as while teaching Business law, Cyber Laws etc.

3.2. Analysis and Reasoning

All questions in examination are based on analysis and reasoning. Free internet access in the library and wifi facilities in campus promote the habit of self learning and discussion.

3.3 Discussion

University follows the discussion methods in different subjects as it makes the students to think wide and participate in coming up with the opinions & suggestions to check their current knowledge. Discussions are held basically in soft skills, managerial communications, business adoptions etc.

3.4 Quizzes

Quizzes are conducted by subject teachers in all PG programmes.

3.5 Research Activities

Research activities are conducted in each Department under the guidance of faculty members, where the students of different semester get knowledge about emerging area and help them to promote research aptitude.

File Description	Document
Upload any additional information	View Document

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

The VTU, being a technical university, encourages intensive use of ICT enabled tools including online resources for effective teaching and learning process. All the faculty members of the university are using ICT tools and resources available on its campuses. They use LCD projectors, video conferencing, apple tabs, A-view, Google quiz, MOOCS and e-learning technology.

The VTU e-Learning centre was established in August 2003 in Mysuru with the main aim of facilitating distance education and training to the students and faculty of the VTU through satellite and web. Currently, the VTU e-Learning centre has migrated from satellite based EDUSAT prgramme to web based e-Shikshana programme. The objectives are:

- Create e-Shikshana web based distance education facility using Network Multimedia Based Data Broadcasting System (NMBDBS)
- Collect, process and disseminate content developed by the faculty drawn from both academia and industry.
- Create web-based e-learning facility

- Provide interaction/guidance/feedback tools to learners and act as a facilitator between the experts and the stake holders

- Supplement the conventional system of training and education and bring uniformity in technical education.

The e-Learning centre periodically conducts workshops for research scholars enrolled under the VTU for the doctoral work. Students are encouraged to use the NPTEL courses as value addition along with their regular course.

All the classrooms in Belagavi, Muddenhalli, Kalaburgi and Mysuru campus are ICT enabled. The laboratories Seminar Halls, Auditorium, Senate conference Room and other conference Room are well equipped with ICT facilities. e-Learning centre helps the teachers in developing e-content in different subjects. e-learning centre was developed to meet the learning demands of engineering students. The centre develops e-learning content and works on e-learning research, EDUSAT based live transmission of lectures continues to be one of the core operation of the VTU e-learning centre. More than 5000 live hours of live streaming on various subjects by experts are conducted across the VTU affiliated colleges. Special lectures and technical talks are also arranged by inviting experts from industry. The VTU is the first university that has networked its affiliated colleges across state under the Indian space research organisation EDUSAT project through SIT network.

All the faculty members are encouraged to register for MOOC courses of their interest and the faculty members are using various on-line video conferencing technologies like Webex, GoogleMeet and so on to deliver the lectures in the COVID pendamic. Students are encouraged to use virtual labs for their laboratory subjects and the webinar is organized for both faculty and students on how-to use virtual labs with the support of faculty members of NIT surathkal through FOSS group of the VTU.

Library also offers a wide range of e-resources through the VTU consortium which are extended 24x7 services via remote access facilities to all stakeholders. Almost all faculties are friendly to used ICT facilities. As a part of the VTU-consortium, all the faculty members in the university are provided a facility to check anti-plagiarism for MBA/M.Tech/MCA and doctoral thesis.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 9:1

2.3.3.1 **Number of mentors**

Response: 144

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 86.19

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. year-wise during the last five years

Response: 46.7

2.4.2.1 **Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
76	70	67	65	60

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest

completed academic year in number of years)

Response: 5.19

2.4.3.1 **Total experience of full-time teachers**

Response: 748

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document
Any additional information	View Document

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 12.43

2.4.4.1 **Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
6	2	3	4	3

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 75.2

2.5.1.1 **Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
46	171	114	25	20

File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document
Any additional information	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.05

2.5.2.1 **Number of complaints/grievances about evaluation year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
3	2	2	0	0

File Description	Document
Number of complaints and total number of students appeared year wise	View Document

2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

Response:

The university has been continuously carrying out reforms in its examination procedure through integration of IT in all the procedures and processes of the examination system. The reforms have also been implemented in the continuous internal assessments modes and components. Examination procedure has been completely automated using in-house IT software. Positive impact of reforms in the examination procedures and processes attaracts other instiutions to emulate this practise of the VTU.

Examination Procedures and IT Integration

- Adopting semester patterns of examination with continuous evaluation system for all the departments and affiliated colleges.
- Digital evaluation system has been successfully implemented for UG, PG and Ph.D examinations.
- Inclusion of seminar project, assignment, seminar presentation etc. as components of evaluation.

The positive impact of the examination management system in the university is as follows:

- e-Governance has been successfully implemented in the university. Online entry of students resumes, attendance and internal assessment of marks help to reduce the errors and saves a lot of

time.

- Online filling of examination /revaluation forms helps the students and the university in saving time and in generating admission tickets with precision.
- The university delivers question papers through online 30 minutes before the start of exam. Question paper delivery system (QPDS) helps in avoiding leakage of question papers and saves lot of stationery and physical movements.
- Examiners are appointed only from the panel of examiners. Panel of examiners for every subject is compiled meticulously prior to the examination on collecting the information from the institutions / departments, considering eligibility norms of the university.
- Examiners are provided with login and password for the digital evaluation.
- The answer scripts are coded to prevent disclosure of identity of students; thereby bias/malpractice of any kind is prevented.
- Scheme of evaluation along with solutions are made available to the examiners prior to the commencement of evaluation. Thus uniformity is maintained.
- Photo copies of answer scripts will be provided to the desired students on application.
- Evaluation includes the moderation from senior faculty member of the respective course.
- Third evaluation – If the difference in evaluation between first and second is more than 15 marks, then automatically the script will be evaluated by third independent evaluator.

The process that has helped the examination section to improve the functionality of the system and is listed below;

- Online evaluation marks transfer for result processing.
- Online M.Tech and Ph.D thesis evaluation.
- Online declaration of results.
- Photocopy of answer booklets delivered through email to the students.
- Online filling of student details, examination forms and hall tickets generation.
- Online revaluation application form filling.
- Online QPDS, digital evaluation, internal marks filling.

File Description	Document
Year wise number of applications, students and revaluation cases	View Document
Any additional information	View Document
Link for additional information	View Document

2.5.4 Status of automation of Examination division along with approved Examination Manual

Response: 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Current Manual of examination automation system	View Document
Any additional information	View Document
Annual reports of examination including the present status of automation	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

Response:

- The university has clearly stated learning outcomes for each of the programs and courses. The following mechanism is followed to communicate the learning outcomes to the teachers and students.
- Copy of the Syllabi is available in the department and also on the website for ready reference for students and faculty.
- Learning outcomes of the programs and courses are discussed with students at the end of each topic of the study by the faculty leading to technical applications.
- The learning outcomes are expressed in the lesson plan that clearly describes the knowledge skills and competency expected from the students to acquire as a result of completing their programme of study.
- The POs and CO’s are incorporated in the curriculum for display on university website which can be accessed by all the stakeholders namely faculty, students, industry and alumni.
- Graduates will have to build on their academic background to acquire a broad base of technical and management, knowledge and skills that enables them to transfer skills including team building and leadership skills, communication, creative and critical thinking skills, and problem-solving skills suitable for a variety of fields of employment.
- Soft copy of curriculum and learning outcomes of programs and courses are also uploaded on the Institution/university website for reference
- The importance of the learning outcomes is communicated to the teachers in every IQAC meeting and institution committee meeting.The students are also made aware of the same through tutorial meetings.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Paste link for Additional Information	View Document

2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

Response:

The VTU has adopted outcome based education mechanism to ensure the attainment of course outcome and program outcomes. The objective and outcomes are properly mapped for testing and evaluation of students so that PSO's are attained through the competency mapping in terms of knowledge and skills.

The Departments adopt both direct and indirect methods of assessment to ensure attainment of PO's and CO's.

Direct Assessment methods

- **Internal Test**
- **Group discussion**
- **Laboratory performance(Term work)**
- **Student projects**
- **Assignments**
- **Semester Test**
- **End term Theory Result**

The score of this assessment is taken into account for evaluation CO's.

Indirect Assessment Methods

- **Feedbacks**
- **Alumni survey**
- **Co-curricular activities**
- **Extracurricular activities**

Feedback mechanism is used to improve teaching learning process in outcome based education.

Internal assessment is the continuous assessment essential for the fulfillment of the CO's and PO's. There is an internal examination committee that deals with the effective implementation of the evaluation reforms regarding the attainment of course outcomes and programme outcomes. The committee initiates steps such as Unit Tests, Field Survey, Study Tours, Practical Work, Seminars, and Internships.

The university also tries to attain the course outcomes and program outcomes by conducting the activities such as cultural activities, N.S.S, Youth Red Cross, career counseling, personality development program, and communication skills, organizing of scholarly lectures health awareness programs etc.

File Description	Document
Paste link for Additional Information	View Document

2.6.3 Pass Percentage of students(Data for the latest completed academic year) **Response:** 89.18
2.6.3.1 Total number of final year students who passed the examination conducted by Institution. Response: 470
2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.** Response: 527

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process **Response:**

File Description	Document
Upload database of all currently enrolled students	View Document
Upload database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution Research facilities are frequently updated and there is well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

The VTU facilitates research activities by frequently updating infrastructure require for research i.e. laboratories, library, Internet, WiFi and e-Resources. There is well-defined research policy which is uploaded on the university website.

The VTU conducts Doctoral programmes in its seven departments PG-Centres viz. Belagavi, Kalaburgi, Muddenhalli, Mysuru.The university has permitted some affiliated colleges for conducting Ph.D/M.Sc(Engg) programme through their research centers. The “Research Grant Scheme” is also initiated to encourage research by faculty. Ethics in conducting research and Anti-Plagiarism checks are given importance to enhance quality of research. Well equipped laboratories are functioning to support research in the university’s four PG campuses. Regulation regarding Ph.D programme and course work guideline framework exists to properly monitor the programme

It has promoted front-line research activities of the university by providing access to advanced and sophisticated equipments and data bases for Literature survey for acquisition of precise and accurate data from the linkage organization encouraging collaborative research resulting in national and international publications, submission of joint projects and placements.

An exclusive research portal is provided with various information such as finding the professors working in specific area, research topics and list of research students. The portal helps the research scholars and students get access to all necessary information. The students can also get access to university announcements on the various research schemes for financial support. The portal contains the abstract of research topics of all research scholars. Many new features such as “Research Journal Publications” outstanding accomplishment of research scholars and innovation would be figured in coming days.

The VTU has MoU’s with Autodesk, Apple, IBM, Honeywell, Intel, Nuvoton, TI among others. These MoU’s resulted in the establishment of advanced laboratory facilities at the VTU. These labs are under use by students either for training, or for research projects, or for curriculum development. Some MoUs for e.g. with Apple has resulted in training the faculty in creating their own courses and updating them online to be used by the student community across the globe.

Regulation governing the degree of Doctor of philosophy has been amended in 2017 with a view to fulfill (UGC) standards and procedures in the award of M.phil/ Ph.D Degree. These amendments are also based on the experience of conducting Ph.D programme during last decade and aim at ensuring a high standard for the Ph.D conferment. Same is uploaded on the website.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 519.33

3.1.2.1 **The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
296.66	1000	1100	100	100

File Description	Document
Minutes of the relevant bodies of the University	View Document
Institutional data in prescribed format	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

Response: 6.35

3.1.3.1 **The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
03	9	9	10	15

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

Response: 22

3.1.4.1 **The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
2	5	3	9	3

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.5 Institution has the following facilities to support research

1. **Central Instrumentation Centre**
2. **Animal House/Green House**
3. **Museum**
4. **Media laboratory/Studios**
5. **Business Lab**
6. **Research/Statistical Databases**
7. **Mootcourt**
8. **Theatre**
9. **Art Gallery**

Response: A. 4 or more of the above

File Description	Document
Upload the list of facilities provided by the university and their year of establishment	View Document
Paste link of videos and geotagged photographs	View Document

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other

recognitions by national and international agencies (Data for the latest completed academic year)

Response: 100

3.1.6.1 **The Number of departments with UGC-SAP, CAS, DST-FIST , DBT, ICSSR and other similar recognitions by national and international agencies.**

Response: 7

File Description	Document
Institutional data in prescribed format	View Document
e-version of departmental recognition award letters	View Document

3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

Response: 638

3.2.1.1 **Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
125	100	213	100	100

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document
Any additional information	View Document

3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

Response: 1179.83

3.2.2.1 **Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
30	110.4	795.31	110.45	133.67

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by government	View Document
Any additional information	View Document

3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

Response: 1.88

3.2.3.1 **Number of research projects funded by government and non-government agencies during the last five years.**

Response: 55

3.2.3.2 **Number of full time teachers worked in the institution year-wise during the last five years..**

Response: 146

File Description	Document
Supporting document from Funding Agency	View Document
Institutional data in prescribed format	View Document
Paste Link for the funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.

Response:

VTU Innovations:-

1.Bio Fuel Research Center

2. e-learning center

3.VTU Consortium

4.Digital Farming

5. ED Cell

1) BIO FUEL RESEARCH CENTRE

The VTU Bio fuel research and information demonstration centre is established in collaboration of Karnataka State Bio Energy Research and Information Development Board, Bengaluru, Govt of Karanataka. Its main objectives are

1. To conduct awareness and training programmes for farmers, Gram panchyat members ,Taluka panchayat members and zilla Panchayat members
2. To help unemployed youth
3. To guide Mahila Shree Shakti Sangh
4. To help school ,college students, Diploma holders ,Engineering students and others
5. To support students project work in Engineering disciplines
6. To conduct plantation programme
7. To produce bio diesel and conversion of waste products into by products like deoiled cake and sanitizers etc

Awareness programs

Sr. NO	Years	Number of Programme	Members Attended
1	2015-16	32	3561
2	2016-17	32	3302
3	2017-18	35	3550

Training programs

Sr. NO	Years	Number of Programme	Members Attended
1	2015-16	27	2561
2	2016-17	29	3291
3	2017-18	31	3690
Total Plantation programmes		42	
Total sapling programmes		1900	

The VTU has taken initiative to engage the local community by providing employment to 100 workers for housekeeping at the VTU, Belagavi and 30 workers for Garden maintenance from Santi Bastwad village

2) e-Learning centre, Mysuru :

The e-Learning centre has developed e-content for Automobile Engg, Bio Technology, Civil, Computer science Engg, Electrical and Electronics Engg, Electronics and communication Engg, Industrial Automation, Industrial Production Engg and Management, Instrumentation technology, Mathematics, Mechanical Engg, Faculty enrichment programme, CXO speaks by session by industry resource person.

The VTU e-Learning centre has developed an e-Learning content management portal using open source software's. The e-Learning content management system comprises of 471 e-contents with 800+ Course experts and 15120+ total hours of video available at VTU e-Learning portal.

3) The VTU Consortium:

Visvesvaraya Technological University Consortium (VTUCON) brings together 214 institutions of the VTU affiliated Technical Institutions located in Karnataka, India. the VTU Consortium is the dream project of the university, to promote the use of e-Resources by its affiliated institutions to get access at an affordable cost. This is the first co-operative kind of initiative in the entire country. The consortium aims at strengthening the collection of e-Resources in every institution and to enable their faculty and students to access scholarly information on their fingertips

4. Digital Farming:

The VTU has established Digital Farming center with the financial support of TEQIP 1.3.The focus is on watershed development and drip irrigation. The center has Drip Irrigation Material Testing Laboratory and Hydro Geological Investigating Instrument .

5.E.D.Cell

The Institute has also established a Entrepreneurship Development Cell. The Cell conducts entrepreneurship awareness and training programs for students to motivate them to evince interest in entrepreneurship. There is a course on entrepreneurship development for all Degree programs and M.B.A. PG Program.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

Response: 91

3.3.2.1 **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
46	15	5	9	16

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 28

3.3.3.1 **Total number of awards / recognitions received for *research* / innovations won by institution / teachers / research scholars / students year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
5	4	4	3	12

File Description	Document
Institutional data in prescribed format	View Document
e- copies of award letters	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: B. 3 of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards 1.Commendation and monetary incentive at a University function 2.Commendation and medal at a University function 3. Certificate of honor 4.Announcement in the Newsletter / website

Response: D. 1 of the above

File Description	Document
Institutional data in prescribed format	View Document
e- copies of the letters of awards	View Document
Any additional information	View Document

3.4.3 Number of Patents published / awarded during the last five years.

Response: 7

3.4.3.1 **Total number of Patents published / awarded year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
5	1	1	0	0

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 1.06

3.4.4.1 **How many Ph.D's are awarded within last five years.**

Response: 69

3.4.4.2 **Number of teachers recognized as guides during the last five years**

Response: 65

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
URL to the research page on HEI web site	View Document

3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 8.29

3.4.5.1 **Number of research papers in the Journals notified on UGC website during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
256	206	269	234	235

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.6 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Response: 6.11

3.4.6.1 **Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
258	117	136	166	208

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.7 E-content is developed by teachers :

1. **For e-PG-Pathshala**
2. **For CEC (Under Graduate)**
3. **For SWAYAM**
4. **For other MOOCs platform**
5. **For NPTEL/NMEICT/any other Government Initiatives**
6. **For Institutional LMS**

Response: D. Any 2 of the above

File Description	Document
Institutional data in prescribed format	View Document
Give links or upload document of e-content developed	View Document
Any additional information	View Document

3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response:

File Description	Document
Bibliometrics of the publications during the last five years	View Document

3.4.9 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Response:

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

Response:

The VTU has a consultancy policy and it encourages its faculty to undertake personal consultancy testing projects and corporate training. Rules regarding consultancy have been framed. The revenue sharing general consultancy rules, scope of consultancy offered and standard terms and conditions are included in the consultancy policy.

Consultancy services are offered to industries, service sector, Government departments and other national and international area where the expertise is available in the university. The services are offered along the lines of professional services. Consultancy services cover variety of activities such as feasibility studies, technological assessment; assessment of design and current manufacturing process; material energy, environmental and manpower Audits, product design and process development, software development, general trouble shooting, retrofitting exercises ,Intensive efforts for transfer of highly focused skill and expertise to select groups in specific organizations, vision and strategy statement etc.

Testing and evaluation services are offered in select specialized areas. All types of consultancy services offered on the basis of facilities available in the institute. Revenue sharing is done as follows:

Type of consultancy	University share	Personal Consultancy share
Personal	20%	80%
Testing projects	40%	60%
Corporate training	20%	80%

File Description	Document
Upload soft copy of the Consultancy Policy	View Document
Upload minutes of the Governing Council/ Syndicate/Board of Management related to consultancy policy	View Document
Upload any additional information	View Document
Paste URL of the consultancy policy document	View Document

3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in

Lakhs).

Response: 129.29

3.5.2.1 **Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
90.82	8	30.47	0	0

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts indicating the revenue generated through consultancy	View Document

3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years.

Response:

The university has undertaken the extension activity in its neighborhood village Santi Bastwad for creating awareness of social issues propagating national campaign and comprehensive development. The VTU has created number of platforms like NSS, YRC and Institutional social responsibility wing

Social outreach programme organized by the university included,

1) Socially relevant Technical subject books which are in english are translated in regional language i.e. Kannada, which has made great impact by knowledge transfer..

2) Bridge construction across the road for easy accessibility for people of Santi Bastwad village.

3) Painting and infrastructure facilities for the school building at Santi Bastwad.

4) Physiotherapy screening camp

5) Physiotherapy treatment camp

6) One day training on career hunt

7) Program on problem solving techniques

8) Blood donation camp

9) Program on interpersonal communication camp

10) Cancer awareness talk

11) Women Health check up and screening camp

12) Flood rescue operation

13) Talk on Fundamental Duties and Rights of Indian citizens

14) Holistic approach and its importance in our life

15) Identifying social issues and problem at Peeranwadi village

16) Student involvement during festivals such as crackers free Deepavali festival, Kannada Rajotsava , Independence day, NSS special camp are conducted in villages

17) Tree plantation programme

18) Voter literacy camp

19) Swatchh Bharat

20) Gender Issue program

21) Leadership camp (Healthy youth and Healthy India)

22) Bore well Construction at Santi Bastwad Village.

23) Skill Development centre under National skill development programme a Dandeli to develop technical skills and trade apprentice skill etc.

24) Bio Fuel centre at VTU Headquarters Belagavi.

25) Celebration of international Women's day.

26) Felicitation of women achievers.

27) Nation wise competition to create awareness about legal rights of women.

28) Primary health centre established to cater to the needs of nearby villagers and students

29) World Yoga Day celebration

30) Traffic safety week

31) In Covid 19 pendemic time provided Kit,Mask,Handglows to the Neibouring community.

32)Recently adopted 10 Villages School.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last five years

Response: 7

3.6.2.1 **Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
3	2	1	1	0

File Description	Document
Institutional data in prescribed format	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach programs conducted by the institution including those through NSS/NCC/Red cross/YRC during the last five years (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs).

Response: 183

3.6.3.1 **Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc. (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community**

and NGOs) year-wise during the last five years.

2019-20	2018-19	2017-18	2016-17	2015-16
26	39	28	47	43

File Description	Document
Reports of the event organized	View Document
Institutional data in prescribed format	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 98.37

3.6.4.1 **Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
1000	1523	1000	2400	2500

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Response: 31.4

3.7.1.1 **Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
68	57	11	11	10

File Description	Document
Institutional data in prescribed format	View Document
Copies of collaboration	View Document

3.7.2 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Response: 55

3.7.2.1 **Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
18	14	3	8	12

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the MoUs with institution/ industry	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

VTU is trying to improve constantly the student learning environment for providing infrastructure of best quality .It is in line with the one suggested by concerned statutory authorities.

1. Classrooms and other physical facilities:

Following are the details of classroom:

PG Centre	Belagavi	Kalaburgi	Mysuru	Muddenh
Classroom with Lab	21	18	14	32
Seminar Hall	5	3	2	2
Auditorium	1(Dr.APJ Abdul Kalam)			
Ampi Theatre	1			

2. Area

Following are the details of University Land area

Place	Area
Belagavi	120 Acre 2 Guntas
Muddenhalli	200 Acre
Kalaburgi	15 Acre 3 Guntas
Mysuru	42 Acre 7.9 Guntas
Bengaluru(Regional office)	1 Acre 12 Guntas
Total	**378 Acre 24.9 Guntas**

3. Library

Books				
Particulars	**Belagavi**	**Muddenhalli**	**Kalaburagi**	**Mysuru**
Title	9,585	1,104	2,073	1,375
Volumes	42,642	7,492	8,379	6,876
E-books	25,132	25,132	25,132	25,132

Journals

National	105	105	105	105
International	8506	8506	8506	8506

NAAC

4. Laboratories

Belagavi			
Sl No.	**PG Program**	**Laboratory**	Area **(in Sqm)**
1	Water and land management	Computational lab (Apple Lab-II)	90
2	Water and land management	Environmental Lab (Block-3)	76
3	Product design and Manufacturing	Robotics Lab	47
4	Product design and Manufacturing	CAD/CAM Lab	92
5	Product design and Manufacturing	Design and Development Lab	76
6	Computer Network Engg	Computer Network Lab (Apple Bioinformatic Lab)	67
7	Computer science Engg	Computing Lab (Apple Lab)	62
8	MCA	Computer Application Lab (Microsoft Lab)	120

9	MCA	Programming with Python, C, C++ Lab (UGC Lab)	80
10	VLSI Design and Embedded system	VLSI Lab-1(Sun Lab)	78
11	MBA	Business Lab (RFID Lab)	115
Muddenhalli Campus			
1	**PG Program**	**Laboratory**	Area **(in Sqm)**
2	Computer Aided Engg	Design lab	178
3	Aerospace propulsion technology	Computational fluid dynamics lab	178
4	Digital electronics and communication	DSP lab	178
5	Nano Technology	Synthesis lab	178
6	Nano Technology	Characterisation lab	178
7	Nano Technology	Thin film fabrication lab	50
8	Nano Technology	Energy device fabrication & Testing lab	52
9	MBA	Business Lab	76
9	Nano Technology	Nano Biotechnology	65
9	MCA	Computer graphics lab and web design lab	89
10		Apple lab	178
	Kalaburgi campus		
Sl No.	**PG Program**	**Laboratory**	Area **(in Sqm)**
1	Construction technology	Construction Technology Laboratory-1	66
2	Computer science engg	Computer science engg Lab-1	129
3	Computer science engg	Computer science engg Lab-2	83
4	Computer science engg	Texas instrument sponsored center of excellance	99
5	Machine design	Machine design Laboratory-1	129
6	Thermal power engg	Thermal power engg Laboratory-1	102
7	Thermal power engg	Advance training center for solar and geothermal energy	127
8	MCA	MCA Laboratory-1	126
9		MCA Laboratory-2	126
10	MBA	Business Lab	66.5

Mysuru Campus			
Sl No.	**PG Program**	**Laboratory**	Area **(in Sqm)**
1	MCA	MCA lab-1	84
2		MCA lab-2	89
3		MCA lab-3	139
4	Computer Science Engg	Algorithm lab	119.8

5	Industrial Automation Engg	Manufacturing Engg lab-1	131.3
6		Manufacturing Engineering lab-2	131.3
7	Thermal Power Engg	Bio fuel Testing lab	144.3
8		IC engine lab	144.3
9	Structural Engg	Structural Engg lab	134.92
10	MBA	Business Lab	76

File Description	Document
Paste link for additional information	View Document

4.1.2 The institution has adequate facilities for cultural activities, yoga, games (indoor, outdoor) and sports. (gymnasium, yoga centre, auditorium, etc.)

Response:

1. Sports facilities

The VTU provides Indoor and outdoor sports and game facilities to both girls and boys.

Facilities in the VTU Head Quarters

The VTU students participate in several inter institute, intra university, state level, national level and international level competition and Sports

Sl No.	Particular	Number
1	Athletic track and multi-purpose ground for Cricket, Football, handball, Badminton, etc	
2	Synthetic Tennis Court	04
3	Volley Ball Court	02
4	Kabaddi Court	02
5	Basket Ball Court	02
6	Gymnasium for Men	01
7	Gymnasium for Women	01
8	Badminton Hall	02
9	Table Tennis Hall	08
10	Snooker / Billiard Hall	02

11	Chess Hall	01
12	Carom Hall	01

NAAC

2. Yoga and Meditation

The VTU has established a separate yoga and meditation centre located in a separate building measuring 560 sq.meters for the benefit of students and staff residing in Belagavi main campus. Yoga classes are conducted every morning from 6.00 am to 7.30 am and in the evening from 5.30 pm to 6.30 pm.

International yoga day is also celebrated to create awareness about healthy life style.

3. Cultural activities

The VTU organizes various cultural activities like youth festival, NSS day, Women's day, Freshers day, Talent hunt, Dance competition and other such activities to explore the talented creativity of students.

4. Gym facility

A well equipped gymnasium centre is available in the main campus

5. Auditorium:

Dr. APJ Abdul Kalam Auditorium, furnished with modern facilities is available in the Belagavi campus. A well furnished senate hall for smaller events, seminars and meetings is also available in the main campus.

The university has won the following medals in last five years

Year	2015-16	2016-17	2017-18	2018-19
Number of awards for outstanding performance in sports/cultural activities at national/international level during the last five years.	23	22	38	20

File Description	Document
Geotagged pictures	View Document
Paste link for additional information	View Document

4.1.3 Availability of general campus facilities and overall ambience

Response:

VTU has the land registered in its name and location and area as indicated below:

Location	Area(in Sqm)	Area of land in (Acres/Gun
Belagavi	4,85,825.9	120 Acres 02 Gunta
Muddenhalli	8,09,372	200 Acre
Bengaluru	5,261.02	1 Acres 12 Gunta
Kalaburgi	61,006.44	15 Acres 3 Gunta
Mysuru	1,70,768	42 Acres 7.9 Gunta
Total	15,32,233.36	378 Acres 24.9 Gunta

General campus facilities:

The overall ambience and general campus facilities are sufficient to meet the needs of students and staff. There are residential quarters for officers and supporting staff of the university. The Vice chancellor, Registrar, Registrar (Evaluation), Finance officer and other special officers stay on the campus. The campus is full of greenery and well connected with internal roads. The VTU has its own transport facility for the benefit of its staff for commutation between the city and the campus. The campus is also well connected with the city by NWKRTC government transport system. For internal purposes there are two electric passenger vehicles and goods transport vehicle also. There is a well equipped primary health centre, guest house, separate sports complex, canteen and mess facilities. There are more than 5000 trees and 976 medicinal plants. The campus is environment friendly with immense greenery and serenity for a pleasant stay.

The ambience has positive impact on teaching learning process. Students, staff and visitors enjoy the natural ambience on the campus. The campus also has a bank, post office, ATM, shops and cafeteria.

There are gardens such as Nectar garden, Natural garden, Butterfly garden, Ashok van, Navagrah van, Nandnvan, Sptarshi, Nakshtra van and shivapanchayat maintained by the university. New saplings are planted on a continous basis especially during environmental day, national festival and on importnat occasions. A host of measures are undertaken to maintain the greenery and the eco friendly characteristic of the campus. Energy conservation, use of renewable energy, water harvesting, maintaining carbon neutrality and waste management are some of the initiatives taken in this regard.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 50.33

4.1.4.1 **Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
11629.98	5864.12	2002.19	233.8	6837.68

File Description	Document
Upload audited utilization statements	View Document
Institutional data in prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

Response:

A software called "Koha Integrated Library Management" is presently being used for managing the Sri. S. G. Balekundri central library and information center. The library is fully automated with 18.11 version. The process of automation had begun since 2009. KOHA library software provides Cataloguing, Searching, Member/Patron management, Acquisition system and Circulation system (Issue & Return).

Koha has a large number of available languages, with more languages every year. It helps in powerful searching, and an enhanced catalogue display that can use the content from Amazon, Google, Library Thing, Open Library, and Syndetics, among others.

Year	Software using	Version
2015-16	Libsys	7
2016-17	Koha	16.5
2017-18	Koha	16.5
2018-19	Koha	16.5
2019-20	Koha	18.11

Libsys Software:

Sri. S. G. Balekundri central library and information centre also makes use of the software- Libsys Ltd. It is the leading provider of library management system across India and offers solutions such as Library automated system, RFID, Digital management system etc. Libsys software brings you a high level of certainty. The solutions offered are delivered on time, within the budget and come with high quality, better efficiency and responsiveness.

Further, the library has received 2358 Ph.D. thesis (some M.Sc thesis added) from the University and 14,507 Project reports available for reference for all users.

File Description	Document
Paste link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 1772.78

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
1954.05	2207.08	1372.17	2282.17	1048.43

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the last completed academic year

Response: 10.12

4.2.4.1 **Number of teachers and students using library per day over last one year**

Response: 148

File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

Response: 95.38

4.3.1.1 **Number of classrooms and seminar halls with ICT facilities**

Response: 62

File Description	Document
Institutional data in prescribed format	View Document
Paste link for additional information	View Document

4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

Response:

The VTU IT policy provides a framework for use of IT infrastructure and also lays down Vision and Mission of the university in making all its tasks IT enabled. It also outlines a mechanism for establishing and maintaining the IT infrastructure at VTU main campus and also at its regional centers and Constituent college.

Vision:

To provide state of the art IT infrastructure and make all university content and services IT enabled.

Mission:

To update the information technology infrastructure regularly and remain at the cutting edge of technology

To confirm to the legalised use of software systems and applications.

To provide safe and secure IT infrastructure that can provide a platform for all type of information, statics and dynamics. The VTU has the following state of the art IT infrastructure

Hardware infrastructure:

1. Computers (1000+ no’s)
2. Servers
3. Data Centre
4. Storage
5. Projectors
6. Printers

Networking infrastructure:

The university has campus network and Wi-Fi facility with around 1000 nodes. BSNL, NKN and RailTel Fiber optic cables are available for faster and efficient connectivity. Old Computers are either replaced or enhanced with respect to configuration. Additional computing facilities are added based on the need of the students, research scholars and faculty. The following points highlight the availability of infrastructure on the computing front:-

1) Bandwidth details: 300 Mbps internet leased line, 1 Gbps NKN line, 10 Mbps backup line.

2) Sufficient computing facilities are available for teaching and non teaching staff

3) LAN Facility details: 1000 nodes LAN with OFC backbone

4) Wi FI details: Centralized controller with 16 Access points

5) Firewall details: Unified Threat Management (UTM) XG next generation firewall, Cyberoam 2500 iNG with user based authentications, Instruction Prevention, VPN

6) Antivirus details: Secrete End point Security, F-Secure

7) Exchange upgradation in calling service, Servers and desktops, Network centre are upgraded at regular interval of Time

8) Software details (academic, examination, Server, Language base software)

The aforesaid computing features and peripherals are helpful to the following wings of the university in discharge of their duties.

1. Academic

The computing facility aids the e-administration (Employee information, College information, Inward /outward modules, CoB, CoC, Migration Certificate, DCB entry, Receipt Generation etc.) in the academic section.

Software platform: Microsoft .Net, DB MS SQL

2. Examination software modules

1. Resume Management
2. IA and practical Marks Management
3. Scanning and Digital Valuation System
4. Lab Management
5. Grade Card System
6. Faculty information Management
7. Students Attendance Management
8. Question Paper Delivery System
9. Results

10. Photocopy Management
11. QP scheme and Defragmentation
12. CSDCS Management

3. Library software details:

Koha and Libsys softwares are used for complete automation of library system.

4. Computer and Network control Centre (CNC): The CNC is responsible for managing Project Management Cell (PMC) established for In-house software design, development, deployment and training. CNC provides the following services to the affiliated colleges and regional centres and various sections of the university.

1. Network infrastructure Management
2. Hardware infrastructure Management
3. Firewall Management
4. Web hosting facility
5. Server Administration
6. Software Development
7. Storage Management
8. Technical Support
9. SMS services
10. Maintenance of computers, network devices, servers, printers etc.

File Description	Document
Upload any additional information	View Document

4.3.3 Student - Computer ratio (Data for the latest completed academic year)

Response: 1:1

File Description	Document
Student – computer ratio	View Document

4.3.4 Available bandwidth of internet connection in the Institution (Leased line)

Response: B. 500 MBPS - 1 GBPS

File Description	Document
Upload any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.5 Institution has the following Facilities for e-content development

1. **Media centre**
2. **Audio visual centre**
3. **Lecture Capturing System(LCS)**
4. **Mixing equipments and softwares for editing**

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Links of photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 100

4.4.1.1 **Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
11391.92	19507.10	9418.06	11782.86	7104.95

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The VTU has established systems and procedures to maintain and utilise the physical academic support facilities viz., laboratories, computers, classrooms, sports complex etc. The responsibility of housekeeping, security and gardening and campus maintenance vests with the engineering section of the university. The

maintenance is done by awarding a annual maintenance contract after inviting tenders as per the procedures laid down in the university norms and statutes.

1. IT facility:

IT facilities are maintained and supervised by the CNC department. Periodic reports are generated on the state of upkeep and maintenance. The university has a qualified staff to maintain electric and civil works and to manage the power break down with generator sets installed for the same.

2. Laboratory:

All repairs, maintenance and upgradation of the labs is the responsibility of lab in-charge and technical experts. Laboratory maintenance and repair is awarded through annual maintenance contract observing all the formalities as per rules.

3. Workshops:

Periodic maintenance of workshop requirements are submitted to the concerned staff of the administrative office which are processed and proper action is taken in the matter.

4. Library:

The major maintenance activities in the library include:

- Periodic pest control of library books and records.
- Periodic stock taking of books and equipment.
- Upgradation of the digital infrastructure of the library with the help of the CNC department.

5. Transport:

The VTU has a transport department comprising of buses, vans, cars and ambulance which are maintained properly and efficiently. Belagavi main campus has 3 buses to facilitate the staff of the university to commute between Belagavi city to university campus. Similarly one bus is provided for staff at Bengaluru and Muddenhalli, to commute between Bangalore to Muddenhalli

- The Transport department is housed in the engineering section for the management of logistics.
- In all there are 30 vehicles owned by VTU to be used at different campuses.
- 2 electric vehicles are also available in the main campus.

6. Sports facility:

Sports facilities are maintained and upgraded from time to time. Major maintenance and repairs are reported to the administration for taking remedial measures through engineering department.

7. Computers:

- The CNC department is responsible for proper utilization and maintenance of LAN, Internet and Wi fi Facility

- Major equipments of computer lab are covered under AMC, where as small instruments are repaired by in house technicians.
- Technical aids such as multimedia projectors, laptops, desktops are maintained by the respective departments and minor repairs are carried out by the in-house technicians, where as major repairs are covered under AMC.

8. Classrooms:

- Classroom maintenance i.e. cleaning and housekeeping, garden maintenance, housekeeping and other maintenance is done on a regular basis through outsource agencies by employing people from neighbourhood villages.
- The engineering section is responsible for maintenance of the building and physical facilities including washrooms.

9. Electrical maintenance:

The engineering section takes care of uninterrupted power supply and maintenance of electrical assets, generator sets, Lighting, power distribution, solar energy as per their maintenance schedule. Maintenance of equipment of water supply, sewage treatment is also under taken as per the maintenance schedule.

File Description	Document
Paste link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

Response: 66.47

5.1.1.1 **Number of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) year wise during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).**

2019-20	2018-19	2017-18	2016-17	2015-16
664	1634	1002	1078	720

File Description	Document
Upload self attested letter with the list of students sanctioned scholarship	View Document
Institutional data in prescribed format	View Document

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations offered by the Institution during the last five years.

Response: 14.57

5.1.2.1 **Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
4	796	114	3	3

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical

fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All of the above

File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document
Link to Institutional website	View Document

5.1.4 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies 2. Organisation wide awareness and undertakings on policies with zero tolerance 3. Mechanisms for submission of online/offline students' grievances 4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression

5.2.1 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 74.64

5.2.1.1 **Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.)*) year-wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
2	5	4	3	4

5.2.1.2 **Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government**

examinations) year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
11	5	5	4	4

File Description	Document
Upload supporting data for the same	View Document
Institutional data in prescribed format	View Document

5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 6.94

5.2.2.1 **Number of outgoing students placed year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
6	81	94	65	56

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Institutional data in prescribed format	View Document

5.2.3 Percentage of student progression to higher education (previous graduating batch).

Response: 3.19

5.2.3.1 **Number of outgoing student progressing to higher education.**

Response: 19

File Description	Document
Upload supporting data for student/alumni	View Document
Institutional data in prescribed format	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

Response: 94

5.3.1.1 **Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
19	16	28	14	17

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters and certificates	View Document

5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

Response:

Students council is present in the form of subject associations, student chapters, student clubs (academic and cultural) and class representatives. The university encourages students to take active part in various activities of the university.

The active participation of the students is encouraged in the management of hostel activities. Students act as volunteers during the convocation and other major events in the university. Students help in organizing seminars, workshops and conferences. They are participating in public functions, cultural activities, sports, debates and various competitions. Students also represent the university at the state, national and international level competitions. Students' feedback in mentor groups about teaching learning process and other activities of the department are very useful in policy making and decision making process of the university.

Students can also register their grievances and interact freely with the faculty members if they have any problem. They can also suggest or complain regarding curriculum, support services or any other unfulfilled requirements. Students are also nominated as members of the disciplinary committee, anti ragging committee and other such committees as the need arises. Students are allowed to plan for co-curricular and extra-curricular activities in consultation with the heads of the respective department under the guidance of faculty members and execute the same. They are actively participating in NSS, YRC, EDC, Womens' cell and other activities.

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 46.4

5.3.3.1 **Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
33	64	69	35	31

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

A satisfied and well placed alumni are the best ambassadaors of the institution. The VTU PG Centre Alumni Association is created to build a strong supportive alumni committee. It plays a important role in shaping the future of the university. The association is in the process of registration under the Society Registration Act. The by-laws have been framed and accordingly four chapters have been established and are functioning at Belagavi, Kalaburgi, Muddenhalli and Mysuru for better connect of alumni with the university. A separate webpage for alumni is created for which there is a good response from the alumni. A good number of alumni are occupying eminent positions and are contributing in some form or other to their parent institution. Individual alumni also contributes both professionaly and economically to the overall development of the department and the universiy as a whole. The contributions generated from the alumni association is used to conduct activities of the association.

The members of the association contribute in the following manner

- Feedback on curriculum
- Teaching learning process
- Bridging the gap between industry and academia
- Important suggestions about the changing trends in business and industry
- Guest lectures to the students of the current batch.
- Interaction and mentoring the students

Alumni meets are conducted periodically for networking, strengthening the social relations and sharing the

expertise with the students for projects guidance, placements, internship and competitive examinations. Alumni are also engaged in providing placement support and research activities helpful in promoting innovation, patenting and industry-institute interface.

5.4.2 Alumni contribution during the last five years (INR in Lakhs)

Response: D. 5 Lakhs - 20 Lakhs

File Description	Document
Any additional information	View Document

NAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

Response:

The Vision and Mission of the Visvesvaraya Technological University is as follows:

Vision:

To become an outstanding Technological University at the cutting edge of Science and Technology that produces world class Knowledge-delivery, Research, Extension and Leadership in Technology innovation for Industry and Society.

Mission:

To plan the development of technical education, to establish value-based and need-based education and training in engineering and technology, with a view to generate qualified and competent manpower, responsive to technological and societal needs.

- The Vice-Chancellor of the University is the chief executive officer who provides an effective leadership in tune with the vision and the mission of the University as per the VTU Act, the Vice-Chancellor is supported by the Registrar, Registrar Evaluation, Finance officer, Dean, Principals of affiliated colleges, Heads of the Departments along with Technical and other staff.

- All the officers are appointed with clarity of their duties and powers as defined by the provisions of the VTU Act.
- Executive Council, Academic Senate, Boards of Studies, Board of Examination, Finance Committee, Departmental Council, Hostel Committee conduct regular meetings as per the statutes and the Act, and their decisions are implemented by the Registrar, Registrar Evaluation, Finance officer supported by other staff.
- The effectiveness of the university leadership is reflected in it’s mission. The mission statement shows a distinctive characteristic in terms of addressing the needs of the society. The VTU has evolved as a multi disciplinary, multi phased organization in synchronization with the needs of the society and national development. It has a dynamic and vibrant research focus reflected in its publications, awards, wide spectrum of global collaborations, industry interaction and scopus rating. The NIRF 2020 has ranked the VTU at 55th level in the Engineering category, it has got 71st rank in the Management category and 80th rank in University category. The KSURF has given a rating of 4 star in the category of established university on the basis of its comprehensive performance matrix as on the 31st March 2019.
- The VTU has developed a learner centric multi disciplinary curriculum and offers industry driven training programmes for enhancing skills. It offers specialised courses such as Nano Technology, Aeronautical Engg, Water and Land management, Environmental Engg, Bio Technology, Information Technology, Silk Technology, Textile Technology, Highway Technology, Product Design, Machine Design apart from traditional technical courses and other contemporary

subjects/skill based training. These courses aim at developing professional competency in the students to cater the needs of the corporates and society.

- The leadership identifies the organizational needs and strives to fulfill them. The focus is on value based education, environment friendly practices, research, innovation and enhancing quality of higher education and thus emerge as a permier institution at the national and international horizons.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

The VTU practices decentralization and participative management. Teachers, Students, Alumni, Industry personnel and other stakeholders participate in the decision making, curriculum designing, academic planning to achieve professional excellence.

Context:

The VTU is a student centric, a socially responsible public organization which strives to meet the needs of the students and groom professionals and leaders in different fields. In this process stakeholders are also involved.

Objectives:

With intense global competition and a disruptive technology era, there is a need to provide professional competencies to our student for better carrier prospects.

Process of participative management:

The statutory bodies of the university, namely the Academic senate, Finance committee, BoS, Department council, Academic planning and Evaluation Board collectively participate in the management process. Faculty members participate in preparing the schedule of academic activities for the year such as academic calendar, Internal tests, foundation course, remedial coaching, mentoring, innovative teaching, sports, cultural activities and alumni interaction. Teachers also help in periodic review of the curriculum and decide about the implementation of new and value added courses. Keeping the curriculum as a broad framework, teachers also help in conducting students' welfare activities and other value addition programs. They participate in anti ragging committees, womens cell, alumni association and conducting various examinations. Teachers also coordinate seminars, guest lectures and other academic and administrative activities of the university. Some of them also work as special officers in academic, examination sections on deputation basis without hampering the department job. Academic activities are mostly decentralized department wise. Teachers are also appointed as NSS coordinator, Placement

committee members, Youth Red cross, Sports, Yoga and in Cultural activities

The VTU firmly believes that dessimination of knowledge and creation of new knowledge must be the cardinal endeavours of our university. The university is involved in knowledge management strategy in the following way:

- Participation of faculty members in various conferences, Seminars and training programmes.
- Publication of research papers in various journals at national and international levels.
- Undertaking socially relevant research projects.
- Use of ICT facilities.

Conclusion

The VTU is engaged in nurturing and encouraging students to enhance their skill sets as per the global requirements of both the corporates and academia. Special SC/ST cell is established to provide better facilities to the students belonging to socially backward classes. All government and university level financial assistance is provided. Each student belonging to this category is given a laptop to incentivis them towards the digital world. The cell is managed by a faculty member, similarly Womens cell, EDC, Sports and cultural committee, Placement committee, Alumni association are all in place working under the guidance of faculty members. All financial transactions of the university have been digitalized to demonstrate transparency in functioning of the university.

The outcome of all these efforts is witnessed in better admission, good placement, winning national, International competition, enhanced technical competencies, in sports and cultural activities.

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic plan is effectively deployed.

Response:

The VTU prepares a strategic plan after taking into consideration the vision, mission and the objectives of the university. Though there is a perspective plan of five years, an annual action plans and budgets are also prepared for better coordination and execution. The plans are prepared at three levels namely:

1) Departmental council

2) University level

3) IQAC level

The final approval of the plans is given by the executive council of the VTU, while preparing the strategic plan following elements are considered.

1) Academic administration

2) Teaching and learning process

3) Staff resources

4) Industry interface and placement

5) Infrastructure resources

6) Research and innovation

7) Entrepreneurship

8) Skill development

9) Safety and Security of women

10) Student support activities

The proposed annual plan is placed before the competent authority for approval and implementation. The VISION 2020 document is in place as a strategic plan of the VTU.

The example

Visvesvaraya Technological University is actively engaged in promoting the spirit of entrepreneurship and skill development among students and in consonance with the vision of the institution. Entrepreneurship development cell is actively working for creating awareness about entrepreneurship among degree students of affiliated colleges and is trying to promote women empowerment through womens cell. NSS, Youth Red cross, sports committees encourage the students in imbibing leadership, qualities, health awareness, team spirit etc. Several events are orgainsed at inter-collegiate and inter/intra university levels to foster the skill India and Fit India programs of the Government India.

File Description	Document
Strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

Response:

The VTU has a clearly defined organizational structure and administrative set up to support decision making process. The VTU Act and the statutes of the university provide for various statutory authority and also a policy framework and direction for the functioning of the university. As per the Act the chancellor of the university is his Excellency the Governor of the state who provides leadership and guidance to all the officials of the university without any day to day interference. The pro-vice chancellor is the Honorable

minister for higher education of the state of Karnataka. He provides necessary guidance and support for the development of the university.

The executive committee, academic senate, finance committee, faculties, departmental council, BoS, BoE are the other functionaries of the university. These bodies are mainly concerned with policy making, planning and control.

At the administrative level, the Honorable Vice-chancellor is assisted by a well designed organizational structure supported by the Registrar, Registrar Evaluation, Finance officer, Resident engineer and other non teaching staff. The Registrar is chief implementing officer assisted by the finance officer, Registrar Evaluation and other functionaries of the university. There are other officials namely Special officers, Office superintendents, senior and junior assistants who execute the decisions. The vice-chancellor is assisted by different committees represented by teaching and non teaching staff constituted to make recommendations on specific administrative and academic matters.

On academic matters assistance is provided by the Dean (Academics), Faculty, BoS, Joint BoS, Chairpersons, Coordinators and special officers. All academics matters are decided by the academic senate. Finally they are approved by the executive council.

Policies:

- IT Policy
- Consultancy Policy
- Research Policy
- Academic Policy
- Examination Policy
- Student Manual

File Description	Document
Any additional information	View Document
Link to Organogram of the University webpage	View Document

6.2.3 Institution Implements e-governance covering following areas of operation

1. **Administration**
2. **Finance and Accounts**
3. **Student Admission and Support**
4. **Examination**

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document
Any additional information	View Document
Link for additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff .

Response:

The VTU undertakes various welfare measures for both the teaching and non teaching staff. The following point enumerate the faculty empowerment at the VTU.

- **Medical facility**:

The university has a **Charakha health centre** with one qualified Doctor along with para-medical and nursing staff. Free consultation is available to all the employees along with emergency medicines. Medical specialists are invited to give awareness lectures. The centre is equipped to treat all types of elementary illnesses and has an ambulance at its disposal.

- **Medical cover:**

Employees of the university, their dependant spouses, parents and children are covered under the medical reimbursement scheme and the medical expenses are reimbursed at the prescribed rates.

- **Leave facility**:

The university follows the KCSR in the garnts/sanction of leaves, aminities and facilities to its staff.

- 10 casual leaves and 30 encashable earned leaves for non teaching staff and additionally 20 half earned pay leaves is also granted.
- 15 Casual leaves and 10 encashable earned leaves for teaching staff.
- Maternity leave of 6 months for women employee with pay.
- Paternity leave of 15 days, for male employees up to 2 children.
- Death-cum-retirement gratuity and a job for one dependant on compassionate ground is also offered by the VTU.

Other facilities:

- PF facility is offered for contract and outsource employees.
- ESI facility is offered for contract and outsource employees.
- Cooperative housing society.
- Transport facility for teaching and non teaching employees at subsidised rates of Rs. 800 for teaching and Rs. 400 for non teaching permanent employee per month for availing commutation between city and campus.
- Two electric vehicles are also available for commuting within the campus.
- Benefits of gratuity are provided after completing stipulated service as per Karnataka Civil Service Rules.
- Wards of employees are honoured for securing highest number of marks in their respective examination.
- Festival advance of Rs. 10,000 is allowed for all employees
- Staff quarters are available on the main campus for both teaching and non teaching employees.
- Health centre with ambulance facility is available for emergency purpose.
- Yoga and Meditation centre
- Gymnasium
- Canteen and Mess facility
- SBI to facilitate banking transactions.
- Post office

6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Response: 1.25

6.3.2.1 **Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
6	1	2	0	0

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 19

6.3.3.1 **Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
21	17	8	23	26

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres)	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View Document
Link for Additional Information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 36.76

6.3.4.1 **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
77	51	40	47	51

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

The financial management and resource mobilization is monitored by the university under the provisions of the VTU Act 1994. The finance committee of the university meets at least twice in a year and deliberates about the financial planning and the financial position of the university. The Financial resource management is done by a university strategic plan which includes financial best practices in deployment of resources making creative and effective use of resources with the use of high quality information technology. Presently, the university has a self financing system which is managed with its own resources.

The Resource Mobilization Policy seeks to guide the university's efforts towards building a strong finance and to provide sound base for its programs. It reviews the funding pattern, provides guidelines and strategies for mobilizing resources to support the implementation of the university's strategic plan, and the ultimate fulfillment of its vision and mission.

Broadly the resources are required for various purposes like administration, academic, affiliation, infrastructure, development, maintenance and miscellaneous purposes.

The VTU resources include block grants from the state government, research and other specifics grants, registration fees under category "A" which is kept in general fund. The VTU also mobilizes resources from registration fees, visibilities fee, transfer fees, fines and penalty, migration fee, annual fees, affiliation fees, processing fees, local inspection fees, sponsorship for rank holders for awarding medals (Gold, Bronze, Silver), donations, etc.

It also generates reveneue from examination fees, fines, penalty, evaluation fee, convocation fee etc.

Another source of university finance is the sports development fee, Government grants for NSS, fees of PG courses, e-Learning fee, consultancy and delegation fee. Further, there are receipts in the form of rent, tender application fees and fees collected from constituent college of Davangere.

Other sources of revenue are the interest from bank accounts, interest for FDs, reinvestment of accrued interest, academic fees, hostel fees, sports, transport fee etc, which are internal in nature. The external sources consist of training and consultancy revenue, research and project grants, TEQIP funds etc.

To ensure proper and optimal use of the resources a strict budgetary control on expenditure is exercised as per the provisions of the Act. The internal and external audit are also carried out regularly and the audit objections are taken care off to improve the efficiency further.

File Description	Document
Any additional information	View Document

6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 912.74

6.4.2.1 ***Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).***

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	478.25	86.59	347.9

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Any additional information	View Document
Annual statements of accounts	View Document

6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 23.38

6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2019-20	2018-19	2017-18	2016-17	2015-16
3.49	0.43	3.580	4.08	11.80

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

6.4.4 Institution conducts internal and external financial audits regularly

Response:

The VTU, Belagavi has made appropriate arrangements for the internal and external financial audit on regularly basis by taking the following measures:

- The Finance Officer is of the cadre of Joint Controller from the Karnataka State Audit and

Accounts Department, working since January 2017. Prior to that, the Registrar of the university was holding additional charge of the Finance Officer of the University.

- The Finance Officer is discharging the duties as stipulated in the VTU Act 1994 and the statutes, duly exercising internal checks and financial control over the transactions.
- Apart from that, action has been taken for internal audit of certain transactions of various components by the Karnataka Institute of Public Auditors Bengaluru, a registered institute engaged in the audit of Government and autonomous bodies.
- In respect of external audit, the Principal Director of the Karnataka State Audit and Accounts Department, Bengaluru is the Statutory Auditor of the accounts of the VTU, Belagavi. The Additional Director of the regional Office of the Karnataka State Audit and Accounts Department audits the accounts of VTU on behalf of the Principal Director of Karnataka State Audit and Accounts Department, Bengaluru.
- On receipt of the Audit Reports from the State Audit and Accounts Department, Compliance and Action Taken Reports are prepared and submitted to the Secretary, Department of Higher Education of the Government of Karnataka, and a copy is forwarded to the Additional Director of Audit Department as per the VTU Act 1994.

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

Response:

The VTU reviews its teaching learning process, structure, methodologies of operations and learning outcomes at regular intervals as regards their quality and efficacy through the respective departmental councils. Feedback from different stakeholders such as students, faculty, alumni, parents, industry is taken into consideration. Industry experts, academic experts and other dignitaries who visit the campus on different occasions interact with the faculty and offer their valuable suggestions in the changing context. The IQAC also reviews the teaching learning and other processes and takes initiatives for improving the curriculum and its enrichment. The best practices followed in this regard are:

1) The strategies are framed by the university keeping in view the quality changes required for the development of the university. The norms set by UGC, AICTE, State Government, MHRD and other statutory bodies are strictly followed at the time of admission and the revision of curriculum. The departments have the access to the student's knowledge and skill for a particular program soon after a student is admitted to the course. Apart from the lecture method of teaching, Group discussion, debates, Tutorials, seminars, Case study, Study tours are adopted for improving teaching learning process. The policy document like Karanataka Vision Statement, MHRD guideline, AICTE norms are followed for improving the process. While designing the curriculum, learning outcomes are stated and at the end of semester a review is made about the achievements of the learning outcomes, Innovations in teaching and learning process followed by the best institutions of the world are also noted.

2) Though the curriculum of the university is revised every two years at the PG level and 4 years at the UG level, the faculty members are advised to go beyond the content of syllabi in the classes keeping the

syllabus as a broad framework. Many contemporary developments are also discussed in the class to enrich the curriculum. About 5% of the lecture time is used for covering content beyond the syllabus. Students are also involved in field studies to get some practical experience.

Apart from this, the IQAC takes different quality initiatives in the form of seminars, workshops, faculty development programmes and other such initiatives to enhance the quality of teaching learning process. IQAC has been constituted at the VTU as per the format prescribed by the NAAC and meetings are held periodically. Quality assurance strategy and processes are being discussed and subsequently reviewed by IQAC cell.

File Description	Document
Any additional information	View Document

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit (AAA) and follow up action taken 2.Confernces, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4.Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6.Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

Response: B. 4 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Paste web link of Annual reports of University	View Document

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of first cycle), Post accreditation quality initiatives (second and subsequent cycles).

Response:

Visvesvaraya Technological university has been undertaking different quality initiatives ever since its inception more so in the last five years:

- Establishment of IQAC
- Adoption of flexible CBCS across all the departments.
- Organising FDP’s, Workshops, Seminars with the financial assistance from TEQIP 1.3.
- Self performance appraisal of teaching and non teaching staff.
- Constitution of AAA committee.

- Complete automation of the examination system by using indegenous software, question paper delivery online thirty minutes before the commencement of examination.
- Automation of affiliation system
- Automation of admission process
- Establishment of Entrepreneurship Development Cell
- Introduction of Mentor Mentee program
- MoU’s with the industry, academia and State Government.
- Complete automation of library facilities
- Formation of Alumni Association
- Guest lectures from experts in different domains.
- Establishment of PG and Research centres at affiliated colleges
- Establishment of skill development centre at Dandeli, Karanataka
- Starting of Aerospace and Nano technology programme at Muddenhalli.
- Participation in NIRF and State institutional ranking framework
- Green campus
- Construction of additional infrastructure to meet growing needs of the University.
- Implementation of blooms taxonomy
- Inculcating value system in the university.

File Description	Document
Link for Additional Information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

The VTU demonstrates gender equity through various initiatives and actions by creating safe, secure and healthy ambience in the campus. Awareness of the students is done through special lectures and functions. Specific initiatives with respect to key areas are as follows:

- **Safety and security**

Hi-Tech Surveliance: E- Surveillance with high resolution cameras through day and night facility of distributed recording in control room has been set up in the campus. Entry of unwanted elements is monitored through these cameras. This system ensures that all female staff, students can move freely in the campus and feel safe all the time in the campus.

Hostel: Separate hostels for boys and girl students is available across on the campuses with a cummulative capacity of around 1176 rooms of which 421 rooms are exclusively earmarked for girls students . The hostels have a cummulative capacity of over 2000 students. The students are monitored under a set of well defined rules under the guidance of wardens. All the students and staff compulsorily wear their ID cards at all times on the campus thus ensuring non entry of any outsiders or unauthorized persons.

Security Personnel: The university has strong security personnel deployed all around the campus to create secure environment.

Medical Facilities: The university has a **Charakha health centre** with one qualified Doctor along with para-medical and nursing staff. Free consultation is available to all the employees along with emergency medicines. Medical specialists are invited to give awareness lectures. The centre is equipped to treat all types of elementary illnesses and has an ambulance at its disposal.

- **Counseling:**

The VTU has a system of mentoring in each PG department for inculcating social, moral and ethical values. Womens cell has been creates gender awareness through different programs. All senior officials are available both for boys and girls for solving their problem any time without appointment.

- **Common Rest Room:**

In each block of the university, separate washrooms are available for girls and boys. Separate girls' common room is available with facilities like indoor games, first aid box and newspapers.

- **Ladies Gymnasium facility :**

There is a separate gymnasium facility available for female staff and students.

- **Day Care Centre For Children:**

Efforts are on to set-up a day-care centre for Children.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. **Solar energy**
2. **Biogas plant**
3. **Wheeling to the Grid**
4. **Sensor-based energy conservation**
5. **Use of LED bulbs/ power efficient equipment**

Response: B. 3 of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- **Solid waste management**
- **Liquid waste management**
- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system

- Hazardous chemicals and radioactive waste management

Visvesvaraya Technological University Campus is surrounded by lush greenery with pleasant ambience. There are Mango, Cashew, Teak and other species of trees. The university has established a biodiversity park consisting of medicinal species belonging to the Western Ghat region of Uttar Kannada district and parts of the Northern Karnataka. The entire campus is declared as “No Plastic Zone” with necessary awareness measures being created in the campus through sign boards etc.

Utmost care is taken to dispose off the solid waste. The solid waste generated within the campus is categorized into two: wet and dry waste. The wet waste generated from the residential area from food/ kitchen waste and the dry waste generated both from residential quarters and office such as paper, plastics and wooden materials etc is systematically disposed.

Separate dustbins are placed at appropriate locations throughout the campus for disposal of dry and wet waste. The dry & wet waste collected in these dustbins are carried through trolleys and dumped in the specified place located away from the residential and academic area. The dry/wet degradable waste is disposed into the landfills to produce compost. This compost is used for gardening and plantation.

Waste Management Steps for Liquid waste management

There are two types of liquid wastes generated within the campus, one is the liquid waste from kitchen/ bath rooms and the other is sewage from the toilets. Separate chambers and pipelines have been constructed to collect kitchen/ bathroom liquid waste and sewage waste. This liquid waste generated from the residential area and office buildings are disposed to sewage treatment plant through underground drainage pipes.

The VTU Belagavi has a 200 KLD capacity of sewage treatment plant within the campus which is located on southern part of the campus. The waste water is treated as per the standards laid down by the state pollution control board guideline and treated waste is reused for gardening purpose. This activity is expected to reduce the load on municipal water supply and pump-wells.

E waste Management:

E-waste is managed according to the norms of the Karnataka state pollution control board. The procedure and practices set by the board are adopted by the university.

Hazardous chemicals and radioactive waste management:

In the VTU Campus there are no hazardous chemicals or radioactive wastes generated.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

1. **Rain water harvesting**
2. **Borewell /Open well recharge**
3. **Construction of tanks and bunds**
4. **Waste water recycling**
5. **Maintenance of water bodies and distribution system in the campus**

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document

7.1.5 Green campus initiatives include:

1. **Restricted entry of automobiles**
2. **Use of Bicycles/ Battery powered vehicles**
3. **Pedestrian Friendly pathways**
4. **Ban on use of Plastic**
5. **landscaping with trees and plants**

Response: Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document

7.1.6 Quality audits on environment and energy regularly undertaken by the Institution and any awards received for such green campus initiatives:

1. **Green audit**
2. **Energy audit**
3. **Environment audit**
4. **Clean and green campus recognitions / awards**
5. **Beyond the campus environmental promotion activities**

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

1. **Built environment with ramps/lifts for easy access to classrooms.**
2. **Disabled-friendly washrooms**
3. **Signage including tactile path, lights, display boards and signposts**
4. **Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment**
5. **Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

The VTU is undertaking various initiatives in the form of celebration of days of eminent personalities, National festivals, NSS, YRC and other such activities to provide for an inclusive environment by bringing students and teachers with diverse background on a single platform for creating inclusive growth. These functions help in developing tolerance and harmony towards culture, region and linguistics. A subject on Constitution of India and professional ethics is made mandatory to all B.E students across disciplines. Convocation ceremony is conducted every year, where the convocation address is delivered by luminaries and stalwarts to inspire and motivate the students for future journey.

Two important national festivals, Republic Day and Independence Day are celebrated every year in the university head quarters and the four regional centers. All teaching, non teaching staff and students participate for the cause of nation. The inspiring speeches are delivered by VIPs/Guests and university officials.

Days celebrated	Date
Sadbhavana diwas,	1 Day (3-December)
Gandhi Jayanti	1 Day (2- October)
Ambedkar Jayanti	1 Day (14- April)
Kanakdas Jayant	1 Day (3- December)
Teachers day	1 Day (5- September)
Yoga day	1 Day (21- June)
Independence day	1 Day (15- August)
Republic day	1 Day (26- January)
Engineering's day	1Day (15- September)
NSS day	1 Day (24- September)
Women's day	1 Day (8- March)
World environmental day	1 Day (5- June)
Karnataka Rajostvaa	1 Day (1- November)
Voters Day	1Day (25- January)
Maharshi Valmiki Jayanti	1 Day (24- October)

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Any other relevant information	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

The VTU undertakes different initiatives by organizing various activities to sensitize students and employees about the constitutional obligations. Various activities and programmes are organized to create awareness about values, rights, duties and responsibilities of the citizens. Constitution day is celebrated at

all the centres of the VTU. Motivatonal speeches are delivered on this day describing the fundamental rights, duties, values and responsibilities of citizens as stated in Constitution of India. The journey for the struggle of freedom, respect for the national anthem and national flag are highlighted.

In an attempt to strengthen the democratic values, electoral literacy club and voters awareness forum are created to educate the students and the general public about the democracy. Voters pledge programme is organized regularly for students and faculties of the university. The university conducts essay competition both in Kannada and English regularly to mark National Voters day every year. Awareness processions are also organized in and around the university as a part of this initiative. NSS and YRC have been contributing for promotion of these activities.

The students' manual of the university also focuses on duties and responsibilities and a charter stating the values, duties and responsibilities of citizens is displayed on the campus.

The VTU has constituted a centre on human values at the state level – Universal Human Values (UHV) Cell headed by a Nodal Officer. Universal Human Values is a mandatory program under the Student Induction Program (SIP) and UHV course will be a compulsory credit course from the current academic year.

The objectives of the cell are :

- To familiarize the students with the Indian ethos and culture of the institution.
- To expose the students to a holistic vision of life (based on larger national and human good and the well-being of all).
- To inculcate healthy lifestyle and ethical professional discipline amongst the students.

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

1. **The Code of Conduct is displayed on the website**
2. **There is a committee to monitor adherence to the Code of Conduct**
3. **Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
4. **Annual awareness programmes on Code of Conduct are organized**

Response: C. 2 of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

The VTU celebrates days of eminent personalities, national festivals, NSS day, YRC and other such activities to provide for an inclusive environment by bringing students and teachers with diverse background on a single platform for creating inclusive growth. These functions help in developing tolerance and harmony towards culture, region and linguistics. A mandatory course on 'Constitution of India and Professional Ethics' is introduced for the UG students across disciplines. Convocation ceremony is conducted every year, where the convocation address is delivered by luminaries and stalwards to inspire and motivate the students for future journey.

Two important national festivals viz, Republic Day and Independence Day are celebrated with pomp and gaiety every year in the university head quarters and all the regional centres. All teaching, non teaching staff and students participate for the cause of nation. Many inspiring speeches are delivered by VIPs/Guests and university officials. Some of the important days oberved at VTU are as follows

Days celebrated	Date
Sadbhavana diwas,	December 3,
Gandhi Jayanti	October 2,
Ambedkar Jayanti	April 14,
Teachers day	September 5,
Yoga day	June 21,
Independence day	August 15,
Republic day	January 26,
Engineering’s day	September 15,
NSS day	September 24,
Women's day	March 8,
World environmental day	June 5,
Voters Day	January 25,

File Description	Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Response:

Two best practices successfully implemented by the Institution

1. Title of the practice: Go Green Initiative

1.1. Objective of the practice

- To create environment awareness amongst all stake holders
- Extensive Tree plantation at frequent intervals
- Use of renewable energy
- To maintain carbon neutrality
- Effective waste management

1.2. The context

The main challenge of the modern world is bio-degradation and the challenge of climate change. It is imperative to create awareness amongst students and general public about the seriousness of the current envrionmental condition and its dire consequences. In order to protect the nature and mitigate the impact of adverse climatic change, promotion of eco friendly campus is the need of the hour. The green and serene feel in the campus creates a suitable learning environment and serves as a motivating force for protecting the environment. Apart from mankind, the other species also need protection of environment. Life can be better and enjoyable if green practices are followed.

1.3. Practice

- **Plantation**

There are over 5000 trees in the campus with 976 saplings belonging to different species of medicinal plants. Some of them are cited below:

Eucalyptus, Diospyros,Microphylia, Artocarpus hirsutus, Vitex altissima, Termanalia paniculata, Odine wodier, Hopea parviflora, Olea diocia, Calamus rotang, Pongamia pinnata etc.

Various Gardens such as “ Nectar Garden”, “Natural Garden” , “Wild flower Garden” , “Butter fly Garden” “Asoka Vana”, “Navagraha Vana”, “ Nandana Vana”, “Saptharushi Vana”, “Nakshatra Vana” , “Shiva Panchayatna” are maintained by the University.

Planting of trees is a continuous process and on every environmental day, national festivals and whenever VIP guests visit the campus, new plants are being added.

- **Energy Conservation**
    - Awareness has been created among staff and students to save energy.

- Posters and notices are placed at vantage points in the departments on energy saving measures.
- Incandescent bulbs are replaced with fluorescent lamps.
- Lights, fans, computers and laptops are switched on only when required.
- Lights are not turned on in rooms and labs where natural light is sufficient.
- Window air conditioners are replaced with more efficient split Air conditioners and temperature is set at 25 degree celsius.
- The existing ACs are used sparingly.
- Leaking taps are attended to immediately.
- The ring road gives access to all the buildings and gardens of the university thus minimizing the movements of vehicles inside the campus.
- Bicycles are provided as a means to commute inside the campus for the staffs, students and visitors.
- The green waste is being used for generation of biomass..
- The buildings of the university are planned and constructed in such a way that there is sufficient sunlight and ventilation.
- e-vehicles are used for internal conveyance of VIPs.
- Students are sensitized on the rational use of power and other measures to reduce global warming.

- **Use of Renewable Energy**
  - Solar water heaters are being used in all the hostels and guest houses.
  - Solar thermal energy panels have been installed at different buildings of the University to provide hot water to the staff quarters, and to the University’s Guest house.
  - Waste water treatment with a capacity 200 KLD is installed. The treated water is being used for gardening.
  - Awareness programmes are being organized frequently on the conservation of energy.
  - Biogas and Bio-fuel plants are installed in the University.

- **Water Harvesting**
  - Rain water harvesting is implemented in the university Campus.
  - Storage ponds are created at various places for recharge of ground water.
  - Sewage treatment plant is installed and recycled water is used for gardening.
  - The rain water harvesting system is established for the entire campus through development of drainage network and recharge pit adjacent to drainage network. About 50% of the runoff generated is used in recharging the ground through recharge pits and recharge ponds and construction of check dams.

- **Check-dam construction**
  - Groundwater recharge pits are available at various places in the university Campus.
  - Check dam is constructed across the stream running through the VTU campus to improve ground water table.

- **Efforts for Carbon neutrality**
  - Gardens are established and well maintained.
  - Printing is done on both sides of paper if necessary.

- All documents are edited thoroughly before printing.
- Department notices and information are sent via e-mail/SMS.
- Use of plastic in the campus is discouraged. Awareness is created among students and staff in dissuading the use of polythene material
- Movement within the university campus is encouraged using bicycles.
- Use of bio-diesel for vehicles is encouraged
- Staff and students are encouraged to travel by University bus instead of private vehicles.
- Bio-waste is used for making compost instead of burning.
- Many bio-fuel awareness camps have been organized and more than 1000 people have been trained through bio-fuel cell of the University

- **Hazardous Waste management**
  - No Hazardous wastes are generated in the campus.

- **Non-hazardous Waste management**
  - Sludge generated in the Sewage Treatment Plant (STP) is being used as manure.
  - Deoiled cake generated in biofuel center is used as biofertilizer for all the plants and trees of VTU gardens.

- **E-waste management**:
  - All the E-waste is managed as per the instructions from the Karnataka State Pollution Control Board (KSPCB).

1.3. Evidence of success

Green audit report of the University

1.4. Problem encountered

Going green means to pursue ways that can lead to more environmentally friendly and ecological responsible decision and lifestyles, thereby helping to protect the environment and sustain its natural resources for current as well as future generations. However there are few problems:

- Lack of awareness
- Handling the wastes during rainy season is a challenge.
- Implementation of Pest control (which involves hazardous chemicals).
- Accidental fires remains as a threat.

2. Digitalization of examination system (Transparency)

2.1 Objectives of the practice

The main objectives of this practice are

- To implement Transparent examination system
- Easy accessibility to the stakeholders
- Speedy announcement of results
- Minimum human intervention
- Building public trust in the institution

2.2 Context

Examination and evaluation are essential aspects of the higher education system. Examination system are commonly plagued with the issues of trust, transparency, integrity and credibility of the system. Excessive involvement of human resource is prone to errors. In order to make the examination system - transparent, accurate and speedy, innovative alternatives have to be adopted. There are challenges in designing the question papers, the system of delivery of question papers, conduct of examination and announcement of results and also issue of marks list and other related certificates. In this context, complete digitization is the best options to allievate the problems like leakages of question papers, malpractices, and other related issues.

2.3 Practice

- **On-line Question Paper Delivery System**

The VTU has introduced a unique Question Paper Delivery System (QPDS) to delivery question papers to all its affiliated engineering colleges and PG centres across the state of Karnataka. For every examination cycle, close to 25-30 lakh question papers are delivered through an automated online QPDS. The question papers are delivered through Internet 30 minutes prior to the commencement of the examinations. The introduction of online question paper delivery has eliminated the chances of question paper leakage. Further, the process of question paper printing at the colleges can also be monitored from the VTU headquarters in Belagavi.

- **Digital valuation**

The VTU is the first University in the country to adopt digital evaluation system for evaluation of answer scripts for UG and PG courses as well as Ph.D coursework examinations. Every semester around 25-30 lakh answer scripts are scanned and each script contains 46 pages.

Advantages of digital valuation:

- Computerized window system and online availability of information.
- Centralized, secure and robust database of the candidates appearing in the examination without duplication of records.
- Totaling mistakes of marks is being eliminated
- Effective monitoring of examination process by the concerned authorities and the possibility of fraudulent practices is minimized.

- **Online evaluation of Ph.D. and Post Graduate thesis**

The VTU is the only university in India to adopt on-line evaluation of M. Tech., MCA, MBA, M.Tech, M.Arch., M. Sc. (Engg.) by Research and Ph. D. thesis. The submitted theses go through plagiarism check to ensure academic integrity. Only after clearing the plagiarism test, the thesis is sent to the examiners for online evaluation. The online thesis evaluation software tracks the status of the thesis right from submission of the thesis to the submission of report. This process of online evaluation has greatly reduced the time delays experienced earlier and has taken the entire excersie to new heights in terms of efficiency , transperancy and elimination of errors.

2.4 Evidence of success

- The practice has ensured originality in Ph.D thesis due to plagiarism check.
- Effective monitoring of evaluation process by all concerned and possibility of fraud or malpractices is minimized.
- There is a centralized, secure and robust database of the candidates appearing for the examination without any duplication of records.
- Substantial reduction in the time required evaluation and announcement of results.

2.5 Problems encountered and Resources Required

The digital examination system is a very challenging system. Initially the university faced certain problems in implementing the scheme.

- The university introduced the system by outsourcing the facility which increased the dependency and involved huge cost. To overcome this problem, the VTU has developed an in-house customized software for managing the system.
- The major problem was online connectivity, maintenance of link line and specific type of printer required. It also required expert manpower to manage the system. Affiliated colleges had to also develop and maintain required infrastructure with minimum 256 Mbps internet speed and manpower.
- Maintaining time in the delivery of question papers, scanning facility, availability of power, backup system and the cost to be incurred by affiliated colleges, were the major problems in implementing the system.

Additional Best practices

A. Title: The VTU e-Shikshana Programme

The e-Learning Centre was established in August 2003 in Mysuru with the aim of facilitating distance education and training the students and faculty of the VTU. e-Shikshana is a web based technology driven educational tool exclusively devoted to meet the demands of the educational sector. The VTU implemented this technology to bridge the gap of ever increasing demand for an interactive based distance education system. It has revolutionized classroom teaching through IP based technology. The course experts can address the queries of the students in live-mode.

The objectives are:

- To create e-Shikshana web based distance education facility using Network Multimedia Based Data Broadcasting System (NMBDBS).

- To collect, process and disseminate content developed by the faculty drawn from both the academia and industry.
- To create web-based e-learning facility.
- To provide interaction, guidance and feedback tools to learners and thus act as a facilitator between the experts and the stake holders.
- To supplement the conventional system of training and education and bring uniformity in technical education.
- To explore the possibility of using the eShikshana network for administrative purposes and other activities of the VTU.

The e-Learning centre has been recording the video of lectures rendered by the Professors through EDUSAT, e-Shikshana Programme and laboratory experiments enriched with animations, demonstrations etc. The Video-on-Demand facility is made available to the Choice Based Credit System (CBCS) as a supplementary learning resource and thus emphasise 'VISUAL LEARNING'. This site can be accessed at http://elearning.vtu.ac.in.

B. The VTU Consortium for e-Resources

The primary mission of the VTU Consortium is to facilitate end users to have access to the online resources with minimum investment.

Aims and Objectives

The aims and objectives of the consortium are as follows:

- Provide access to high-quality and scholarly electronic resources to the member institutions evolving competitive pricing models at most favorable terms and conditions.
- Promote rapid and efficient access to scholarly content to the users.
- Promote interaction and inter-library cooperation amongst the participating institutions.
- Training the students, research scholars, faculty members and librarians of the institutions to use electronic resources efficiently.
- Evaluate the usage of the subscribed resources from time to time and to identify new resources that are required to be subscribed under the programme.
- Bring qualitative changes in teaching, learning and research with an aim to meet the ever growing challenges of globalization in higher education.
- Increase the research productivity of the institutions both in terms of quality and quantity of publications and
- Extend the benefit of the consortium to all its members.

Benefits

The consortia-based subscription to e-resources is a viable solution for increasing the access to electronic resources across all the technical institutions at competitive rates. Major benefits of the consortium are as follows:

- The consortium acts as a single-window service for technical institutions with their diverse research

and academic interests.

- The consortium with its collective strength gets competitive rates of subscription, benefit of cap on the annual increase with most favorable terms of agreement for a wider range of e-resources.
- Users get access to scholarly content previously not subscribed to, including back files.
- The consortium is expected to trigger remarkable increase in sharing of both the print and electronic resources amongst participating institutions.
- The consortium has been opened-up for all other technical institutions and polytechnics through its "Associate Membership Programme".
- The research productivity of beneficiary institutions is expected to improve substantially with increased access to international databases and full-text resources.

C. The VTU- Free and Open Source Software Group (FOSS)

Visvesvaraya Technological University has been promoting the use of Free and Open Source software (FOSS) among faculty members and students through the VTU FOSS Group. A FOSS Advisory body has been constituted with a chairperson and members/invitees. This advisory body is responsible for planning and executing all FOSS initiatives of the VTU. The FOSS group is encouraging institutions to conduct various programs like conferences/ FDPs/ workshops/ seminars/ hackathons/project competitions etc, on FOSS related technologies. There is a provision of financial assistance for all FOSS related programs. Any proposal for financial assistance may be sent to foss@vtu.ac.in. Activities Conducted by VTU FOSS Group include:

1. Regular meetings of FOSS advisory body to plan and execute FOSS initiatives. They are also responsible for framing guidelines for FOSS activities.

2. Every year, FOSS project proposals are invited from final year engineering students of affiliated and constituent colleges mentioning themes, guidelines and evaluation criteria. Proposals are scrutinized rigorously and selected proposals are invited for a demo cum competition. Each proposal is awarded financial assistance and cash prizes are awarded as per the VTU FOSS group norms.

3. The FOSS Core group has been formed with faculty from the VTU affiliated and constituent colleges in order to motivate them to carry out FOSS activities at their institutions. Meetings of FOSS core group from north Karnataka region has been conducted and faculty members were invited to discuss regarding FOSS activities.

4. Faculty members are encouraged to participate in lab migration and authoring of course materials. Workshops/ seminars/ hackathons/ conferences from affiliated colleges have been extended financial and administrative support.

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7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Visvesvaraya Technological University (VTU), the only state technological university in Karnataka, having four PG centres, is the largest in the state. It has 214 affiliated colleges offering 23 U.G. , 76 P.G., Ph.D and M.Sc(Engg) by research programs for over 4 lakhs students, supported by over 30,000 faculty members, and several non-teaching staff is at the forefront of the technical education.

Visvesvaraya Technological University is consistently performing well in Teaching-Learning, governance, administration examination system, reforms and student placement activities. The e-Learning Centre has EDUSAT based live transmission, web based e-learning and e-Vidya media streaming solutions. Courses with 3D animations, innovative workshops for the VTU research scholars, FDPs, NMEICT NPTEL Project, Spoken Tutorial Project, IIT Bombay initiatives are offered. The syllabi are revised periodically by incorporating suggestions from the industry, academia and other stakeholders. The VTU has set up a skill development centre to enhance the skill sets of students. Students are encouraged to earn extra credits by taking up courses in B.E. (Hons.) degree. The VTU has set up an Entrepreneurship Development Cell (EDC) to create awareness about the charms of entrepreneurship amongst the students.

The VTU consortium is a co-operative initiative to promote the use of e-resources to its affiliated institutions in getting access to a large number e-books at affordable cost. The university has knowledge partners in the form of MoUs with 25+ academic and industrial organizations . The university's in-house publishing cell "Prasaranga" has undertaken several initiatives to encourage the faculty members to contribute articles and books in Kannada Language.

The VTU has a fully automated system for granting temporary and permanent affiliations to colleges. Financial transparency has been achieved by making payments through SBI payment gateway. The entire procurement process of the university is based on the Karnataka Transparency in Public Procurement Act (KTPPA)1999.

The examination system of the VTU is completely digitized. The questions papers are delivered through this system minutes before the commencement of examinations thereby making the entire system tamper-proof. The digital valuation of answer scripts is managed by a cost effective indigenous software developed by the university. The evaluation of PG and Ph.D. thesis is also done online and the results are also declared in a record time with complete precision.

The VTU with its strong technological base is heading to transform itself as a research centric university. There is a well-defined research policy to facilitate interdisciplinary research activities through well equipped laboratories, library, Internet, Wi-Fi and e-resources. It offers research programmes through its seven departments located at four PG-Centres in Belagavi, Kalaburgi, Muddenhalli and Mysuru. The university has also recognized 168 research centres in its affiliated colleges as well. A research grant scheme is also initiated to encourage research by the faculty members. "Jnana yana" fellowship is given to deserving research scholars. Ethics in conducting research and plagiarism checks are emphasized to enhance quality of research output. Regulations regarding the Ph.D programme and course work guidelines ensure effective management of research programs. The regulations are amended to improve

the programs from time to time in consonance with the UGC and AICTE guidelines. An exclusive research portal is created for smooth functioning of the research programs. The VTU has MoU's with Autodesk, Apple, IBM, Honeywell, Intel, Nuvoton among others and this has resulted in establishing of advanced laboratory facilities at the VTU. Intellectual Property Rights Cell (IPR Cell) has been established in accordance with an IPR policy under a committee headed by it's president. The guidelines of the intellectual property rights ensure complete transparency of IP administration, proper ownership of intellectual property, dispute resolution, patent management (filing, commercialization and/or disposition of intellectual property). New initiatives like use of virtual laboratory for experiential learning are in use.

These rapid strides have helped the university in acheiving phenomenal progress in a short time.

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5. CONCLUSION

Additional Information :

Future Plan:

The VTU has planned a diverse set of activities for the next five years, which include:

- Educating high quality manpower with the required knowledge and skills at postgraduate levels.
- Generating new knowledge through fundamental research.
- A strong emphasis will be given to quality academic excellence
- To become a repository of knowledge and of experts.
- To establish Conference Organizing Support Cell.
- To implement international students and faculty exchange programmes.
- To enhance engagement with society and industry
- To become a source of new ideas and independent opinions through scholarship.
- To become partner with Skill India and Make in India projects of Government of India
- To develop a cleaner and greener campuses.
- To expand the educational base by initiating the following:
    - To start new undergraduate and post-graduate programmes in emerging areas of engineering and technology.
    - To initiate joint academic and research programmes in collaboration with national and international level research institutions.
    - To initiate major skill based curricular revision.
- To become a source of innovative solutions to local problems, development of new products, processes and formation of new businesses, leading to wealth creation and employment generation. There is a plan to establish Industrial Technology Research Institute.
- To seek funding for research projects from Government of India, industries for establishing Centers of Excellence.
- To establish multi-disciplinary eesearch centres in high potential areas and enable cluster faculty hiring.
- To make scientific and academic research at par with international standards.
- To increase internal revenue through masters level courses, executive programmes and professional courses.
- To establish Skill Development and Training Centres in all the districts of Karnataka.
- To create an environment for life-long learning and freedom of thinking.

Concluding Remarks :

- The existence of the VTU hsa been over two decades now. It has earned a reputation of producing extremely talented and innovative breed of technocrats and managers.
- Life in its PG campuses is full of several technology-cultural events. Students get an opportunity to build their core competency and organising skills by participating in various activities.
- The faculty is research oriented where most of the teaching-learning process happens through problem-based projects, case studies and internships. The focus is on developing inquisitive, talented and enthusiastic citizens in such a way that they generate nation-building capacities. Many alumni are working abroad participating in the growth process of the global economy.

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