



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

BHILAI INSTITUTE OF TECHNOLOGY

**BHILAI INSTITUTE OF TECHNOLOGY, DURG BHILAI HOUSE, G.E. ROAD,
DURG CHHATTISGARH - 491001**

491001

www.bitdurg.ac.in

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Institute is pleased to present this self study report for Cycle II to the National Assessment and Accreditation Council, Bangalore.

Bhilai Institute of Technology, Durg was established in the year 1986, with a motto “Aspire to Excel”. It is the first Technical Institute to be conferred with Autonomous Status by University Grants Commission (UGC) in July, 2020. The Institute is approved by All India Council of Technical Education (AICTE) and affiliated to Chhattisgarh Swami Vivekananda Technical University (CSVТУ) Bhilai.

The College proudly offers nine Undergraduate courses [Bachelor of Engineering (B.Tech.)], three Postgraduate courses [Master of Technology (M.Tech)] in Engineering, two Professional Courses in MCA, MBA and also Ph.D program. The ten Departments of the Institute are approved as research centres. With 36 years of rich standing in the educational era, Bhilai Institute of Technology, Durg has an excellent track record and presently all its undergraduate programs are accredited by National Board Accreditation. The Institute is accredited by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) by A grade in Cycle 1. The Institute is also NIRF 2020 ranked in the band of 251 - 300 under Engineering category. This Institution has the distinction of being one among the top ranking and reckoning institutes of choice and preference for the aspiring students of Central India.

Bhilai Institute of Technology, Durg presents itself for quality inspection to serve the stakeholders better in future by getting accredited. The SSR has been prepared as per the norms set by NAAC and gives an insight into our Vision and Mission.

Vision

To become one of the Premier Technical and Management Educational Institutions in the Country, delivering excellent professional education, creating value based globally competitive professionals and achieving excellence in all our endeavor.

Mission

Putting in well directed and honest efforts to create peace, prosperity and growth for all stakeholders by exhibiting team work, commitment and zeal to excel in all our endeavor and striving to be the best.

1.2 Strength, Weakness, Opportunity and Challenges (SWOC)

Institutional Strength

- Well qualified faculty; above 80% retention of faculty.
- Implementation of Outcome Based Education

Institutional Weakness

- Industry Institute interaction needs to be strengthened further.
- Patents and Consultancy work needs to be enhanced.

Institutional Opportunity

- Increased focus on industrialization and educational development.
- Implementing New Education Policy 2020

Institutional Challenge

- Keeping pace with ever changing technological advancements.
- Retaining Chhattisgarh State students in Chhattisgarh.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The Institution has academic autonomy, and hence has the responsibility of designing the curriculum. This responsibility is well exercised and ensured through the curriculum which helps to attain the Program Outcomes (POs) defined by NBA, Program Specific Outcomes, the recommended content by Program Specific Criteria (PSC) of professional bodies, the model curriculum and credit structure as suggested by All India Council for Technical Education (AICTE), the content of prominent competitive examinations, the autonomous guidelines by the affiliating university (CSV TU) together with suggestions from various stakeholders. In addition, the academic autonomy is utilized in an effective manner through implementation of the Elective Based System model through providing a wide range of choice of courses especially in the higher semesters. . However the credit structure and scheme of various disciplines are being framed by the IQAC cell of the Institute. The curriculum also includes courses that identify, nurture and develop entrepreneurs.

The curriculum has included internship(s) to be taken up by students during semester breaks and is assessed through report and seminar during the regular semester. This is to provide field experience to students beyond curriculum. The campus also encourages conduction of regular value-added programs for focused development of skills in core/allied domain beyond curriculum for interested students. These value added programs are usually focused on multi-disciplinary activities. Processes are in place for academic audits and feedback from

stakeholders towards continuous improvements in Curriculum, design and delivery.

Teaching-learning and Evaluation

Teaching Learning Process is a very important parameter in OBE. The teachers play a vital role in this process. The teaching fraternity has good number of qualified members who have obtained their doctoral degree from premier academic institutions. The average teaching experience is around 14 years. The faculty to student ratio is 1: 17.

Majority of the faculty have adopted various ICT tools for effective delivery. These tools are student centric which include experiential learning and problem solving methods. The teachers identify the advanced and slow learners and remedial method is adopted to enhance the level of slow learners. The college caters to the diverse students coming from varied remote places of Chhattisagrh and other states as well. This is well reflected as there is a good demand ratio for the seats offered by the institution.

The holistic development of all students is monitored through an effective mentoring system. The college has adopted many Innovative Processes in Teaching and Learning and the institution is consciously putting efforts to further encourage innovation in Teaching and Learning. The Departments have also evolved many best practices with respect to TLP.

Academic Audits is conducted for continuous improvement. The Internal Quality Assurance Cell conducts quality audit for improving the academic quality. .

Industry participation on various Boards such as Governing Body, Institute Trust, Board of Studies and IQAC cell ensures the effective teaching learning and evaluation. The academic rules and regulations, the regulations governing examination, evaluation and mal-practice etc., have been manifested. The processes mentioned ensure fair and uniform conduction, evaluation of examination. The Controller of Examination takes feedback from the students and other stakeholders for further improvisation. The Evaluation process is transparent. Students are evaluated on a continuous assessment system, comprising of written examinations, class seminars, and assignments.

Research, Innovations and Extension

Institute acknowledges innovations, research and consultancy as key focus areas. The steady increase in the number of linkages with research organisations and reputed universities both India and abroad is a testimony to the institutions commitment towards research. The institution has developed innovative and industry supported labs such as AICTE IDEA lab, Texas Instruments Innovation Lab, Centre of Excellence for machine learning to create research opportunities for students, faculty and researchers. The labs are best-in-class, well-equipped and sophisticated along with plagiarism software Turnitin. The Institute has a well defined research policy. It also has a financial reward scheme to encourage faculty for quality publication in SCI/ Scopus/ UGC Journals.

Ten Departments of the Institutes are approved research centres by the state Technical University. In last five years 192 research scholars have registered/ completed Ph.D.

R&D Committee is established at the Institution level to promote Research & Innovation among the faculty & students. The increased number of publications, grants, patents and consultancy summaries the institutions

achievement in R&D.

The college library has a good collection of books and journal subscriptions to facilitate research. The institution has introduced number of Initiatives towards sensitizing/Promoting Research culture and also to encourage faculty to take up Doctoral Degree. As active agents of social change, the institution addresses, sensitize and find solutions to social and environmental problems through various extensions through its NCC, NSS, Youth Red Cross Unit volunteers. The Institution has received state and national awards in recognition of its activities and societal commitment.

Infrastructure and Learning Resources

The college has an extensive Infrastructure spread over 34.6 acres with a total built up area of 42064 sq.mts. The infrastructure comprises of Administrative Buildings, Departments, State of the art laboratories, AICTE IDEA Lab, Incubation Centres, well-furnished classrooms, Auditoriums, Seminar Halls/Digital Classrooms, Cafeteria and Health Care Centre. Library is automated using Integrated Library Management System Software.

Separate Hostels for boys and girls on the campus with all necessary facilities is provided for study and recreation. Institute provides sports, gym and cultural facilities.

The Centre computing facility (CCF) of the Institute provide and maintain the required IT facilities for all the Departments. Institute has 1 Gbps leased line for internet connectivity. There are about 1255 computers in 2021 – 2022 which has increased to 1340 in 2022 – 2023. The Site office is in charge of civil and electrical maintenance including backup. Adequate fire fighting facilities, telephone, extensive parking space are some of the other facilities provided. Adequate budgetary provision has ensured the proper maintenance of infrastructure and academic support facilities.

Student Support and Progression

Institute ensures the holistic development of the students and provide the necessary support for the progression of the students. The scholarship committee of the Institute ensures that the required students avail the government and non government scholarship schemes.

Institute provide the opportunity to students to participate in various types of academic and campus governance activities. The student are also part of IQAC cell, editorial members of annual magazine of Institute Panorama and departmental newsletters.

Professional Bodies//Clubs provide opportunity to students to participate in wide range of co-curricular, extra-curricular, social and community development activities. Fully Committed NSS, NCC, Women Cell units etc. are in place.

The Placement & Training Cell provides career guidance and helps students in achieving their goals. There are more than 10 clubs in the Institute. Clubs such as Start up Club & Innovation Club established to inspire interest amongst students in innovation and technology. Entrepreneurship Development Cell and Institute Innovation Cell, nurtures the idea of entrepreneurship among the students.

Institute has a registered Alumni Association. Institute has an Alumni Cell which connects and network building an actively engaged community.

The students actively participate in the feedback system. Grievance Redressal Cell is also another outlet for the students, where the students represent their grievances.

Governance, Leadership and Management

The Institute is constituted as per the statutory provisions. The Governing Body (GB) adopts transparent governance mechanism. The GB approves the strategic Plan and budget based on the strategic plan. The GB regularly monitors its implementation. Two faculty members are also members of Governing Body.

The Institute adheres to the good governance practices; a well prepared service rules is published. The finance committee of the Institute initially takes all the finance related decisions which is then put forth to the GB.

The Institute forms various committees at the central level for a tenure of two years headed by senior faculty member as a Professor Incharge with 4 to 5 faculty as members. All Head of the Departments are members of the Academic council where major academic/administrative decisions are being addressed. A decentralized functioning mechanism empowers the departments to function with greater flexibility.

There is an open door policy. Students, staff can approach the Director, Principal, Vice Principals, Deans, HODs for problems which require immediate attention and are redressed on top priority. There is a duly formed grievance redressal cell for students and parents. Effective and participative decision making process is adopted to achieve the vision, mission thus quality goals of the institution and also in building an effective organizational culture. A well-established online feedback mechanism is in place. Regular academic audit (both internal and external) are conducted.

Institutional Values and Best Practices

Institute focusses on imparting ethical and professional values to the students. Some of the Best Practices of the Institute include implementing outcome based education, research & development culture of the Institute, implementation of ERP in the Institute.

In the last academic year 2021 - 2022 Institute has focussed on nurturing two practices listed as below :

- **Promoting Innovation & Creativity among the Students:** To systematically foster the culture of Innovation in the Institute. To encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes while they are in formative years.
- **Promoting Interdisciplinary environment through Skill Development in line with NEP :** To encourage students for application of science, technology, engineering and mathematics (STEM) fundamentals towards enhanced hands-on experience, learning by doing and even product visualization.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	BHILAI INSTITUTE OF TECHNOLOGY
Address	Bhilai Institute of Technology, Durg Bhilai House, G.E. Road, Durg Chhattisgarh - 491001
City	Durg
State	Chhattisgarh
Pin	491001
Website	www.bitdurg.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Mohan Gupta	0788-2359297	9340447442	0788-2359263	mk.gupta@bitdurg.ac.in
IQAC / CIQA coordinator	Raghvendra Banchor	0788-2359424	9926775797	0788-2359263	raghwendrabanchh or@gmail.com

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-1986

Date of grant of 'Autonomy' to the College by UGC

15-07-2020

University to which the college is affiliated		
State	University name	Document
Chhattisgarh	Chhattisgarh Swami Vivekanand Technical University	View Document

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	20-03-2019	View Document
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	04-06-2022	12	AICTE Approval

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	NAAC NBA AICTE NIRF
Date of recognition	07-09-2020

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Bhilai Institute of Technology, Durg Bhilai House, G.E. Road, Durg Chhattisgarh - 491001	Urban	34.6	42064

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Computer Science Engineering	48	XII or Diploma	English	120	120
UG	BTech,Computer Science Engineering	48	XII or Diploma	English	60	60
UG	BVoc,Computer Science Engineering	36	XII	English	30	30
UG	BVoc,Computer Science Engineering	36	XII	English	30	30
UG	BTech,Computer Science Engineering	48	XII or Diploma	English	60	60
UG	BTech,Civil Engineering	48	XII or Diploma	English	120	120
UG	BTech,Electrical Engineering	48	XII or Diploma	English	120	103
UG	BTech,Electronics And Telecommunication Engineering	48	XII or Diploma	English	120	95

UG	BVoc,Electronics And Telecommunication Engineering	36	XII	English	30	30
UG	BTech,Electrical And Electronics Engineering	48	XII or Diploma	English	60	42
UG	BTech,Mechanical Engineering	48	XII or Diploma	English	120	73
UG	BTech,Information Technology	48	XII or Diploma	English	60	60
UG	BVoc,Management	36	XII	English	30	0
PG	Mtech,Computer Science Engineering	24	M.E. or M.Tech	English	18	5
PG	Mtech,Civil Engineering	36	M.E. or M.Tech	English	15	0
PG	Mtech,Civil Engineering	24	M.E. or M.Tech	English	18	4
PG	Mtech,Electrical Engineering	24	M.E. or M.Tech	English	18	3
PG	MBA,Management	24	Graduation	English	120	120
PG	MCA,Computer Application	24	Graduation	English	60	60
Doctoral (Ph.D)	PhD or DPhil,Computer Science Engineering	48	Post Graduation	English	30	30
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	48	Post Graduation	English	11	11

Doctoral (Ph.D)	PhD or DPhil, Electrical Engineering	48	Post Graduation	English	36	36
Doctoral (Ph.D)	PhD or DPhil, Electronics And Telecommunication Engineering	48	Post Graduation	English	13	13
Doctoral (Ph.D)	PhD or DPhil, Mechanical Engineering	48	Post Graduation	English	28	28
Doctoral (Ph.D)	PhD or DPhil, Management	48	Post Graduation	English	31	31
Doctoral (Ph.D)	PhD or DPhil, Computer Application	48	Post Graduation	English	6	6
Doctoral (Ph.D)	PhD or DPhil, Applied Physics	48	Post Graduation	English	4	4
Doctoral (Ph.D)	PhD or DPhil, Applied Chemistry	48	Post Graduation	English	18	18
Doctoral (Ph.D)	PhD or DPhil, Applied Mathematics	48	Post Graduation	English	14	14

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	39				57				159			
Recruited	23	16	0	39	36	14	0	50	81	50	0	131
Yet to Recruit	0				7				28			
Sanctioned by the Management/Society or Other Authorized Bodies	39				50				131			
Recruited	23	16	0	39	36	14	0	50	81	50	0	131
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				128
Recruited	101	27	0	128
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				73
Recruited	68	5	0	73
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

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/LLD/DM/MCH	1	0	0	0	0	0	0	0	0	1
Ph.D.	22	16	0	20	10	0	9	4	0	81
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	17	5	0	73	43	0	138
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	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
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	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
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	0	0	0	0

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	2142	30	0	0	2172
	Female	720	9	0	0	729
	Others	0	0	0	0	0
PG	Male	224	0	0	0	224
	Female	219	0	0	0	219
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	96	0	0	0	96
	Female	96	0	0	0	96
	Others	0	0	0	0	0
Certificate / Awareness	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	20	19	13	19
	Female	8	8	5	8
	Others	0	0	0	0
ST	Male	8	8	6	9
	Female	3	3	2	3
	Others	0	0	0	0
OBC	Male	105	66	55	53
	Female	45	28	23	22
	Others	0	0	0	0
General	Male	538	543	607	585
	Female	230	232	214	249
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		957	907	925	948

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Applied Chemistry	View Document
Applied Mathematics	View Document
Applied Physics	View Document
Civil Engineering	View Document
Computer Application	View Document
Computer Science Engineering	View Document
Electrical And Electronics Engineering	View Document
Electrical Engineering	View Document
Electronics And Telecommunication Engineering	View Document
Information Technology	View Document
Management	View Document
Mechanical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Institute being conferred with Autonomous status in July, 2020 is in the process of devising systems in line with NEP and framing new syllabus. Students can pursue multidisciplinary subjects in open elective courses. Institute has encouraged students to pursue for interdisciplinary projects. Institute also conducts workshops, seminars , expert session on value added course in multidisciplinary areas.
2. Academic bank of credits (ABC):	The Institute has initiated the process of registering for the academic bank of credit. The institute has registered with the backbone i.e National academic depository and the digilocker facility has also been activated for the registered students where all the student records are available.
3. Skill development:	Institute has focused on skill development of students and faculty in upcoming areas. Institute has recently setup the AICTE IDEA lab to provide the necessary infrastructure . It provides all facilities under one roof, for conversion of an idea into a prototype. Institute has also implemented the AICTE KARMA scheme and started the certification courses pertaining to Industry 4.0 . This has helped the

	students to develop the skills required as per the demands of the Industry.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	Institute has been conferred with Autonomous status in July 2020. The syllabus has been framed inline with the NEP policy. Subjects such as Constitution of India and Indian culture & Tradition has been added to the curriculum.
5. Focus on Outcome based education (OBE):	Institute has implemented outcome based education. Its all undergraduate programs are accredited by NBA. The post graduate program in Business Administration (MBA) has also recently completed its NBA Visit. It has also been the Mentor Institute under the AICTE Margdarshan Scheme to share its best practices with the ten technical Institutions of Chhattisgarh. Under this Scheme the Institute has primarily supported the nearby institutions to implement outcome based education and also to apply for accreditation process.
6. Distance education/online education:	Institute has developed systems for online education as well. Adequate facilities are available for the same.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes . Institute has set up the Electoral Literacy Club .
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes. Electoral Literacy activities are functional in college since 2012 by Systematic Voters' Education and Electoral Participation (SVEEP) club under the banner of NSS. Faculty and student coordinators are appointed by the Institute management. The preference of the students with respect to various schemes of the Government (to be taken care by the Institute like Electoral literacy, Swatch Bharat Abhiyan, Aids Awareness, Gender issue etc.) is being taken prior to their nomination. Student Coordinator: - Manas Diwan – 6th Sem ETC Palak Dewangan – 8th Sem EE Faculty Coordinator: - Dr. S.N. Siddiqui Members: - All the registered volunteers of NSS works for SVEEP activities.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral	Initiatives undertaken by the students in electoral process are: - 1. Participation in voter registration of first year students. 2. Voter awareness campaigns in

processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	college as well as outside the college. 3. Providing new as well as updated epic card in association with district election administration. The activities are uploaded in the YouTube channel and Instagram page of NSS, BIT, Durg.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	Various socially relevant initiatives taken by college are majorly the awareness programs within and outside the college, voter registration and updating epic cards etc. The Electoral club of BIT, Durg has received an award of Rs. 7000/- on 25th January 2021 by District Election Office, Durg for contributing in electoral processes.
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	Students of first year who have crossed 18 years are called for voter registration and new epic cards are provided to them. 1) 3 Days EPIC Card Generation Camp (21/11/22 to 23/11/22) • Successfully generated EPIC cards of 15 people 2) 2 Day camp for AADHAR Linking with EPIC card (02/09/2022 - 03/09/2022) • Successfully linked Aadhar card with EPIC cards of 15 people

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
30	30	33	32	28
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 12

2 Students

2.1

Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3514	3353	3181	3013	2913
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
948	819	735	768	854
File Description		Document		
Institutional data in prescribed format		View Document		

2.3

Number of students appeared in the examination conducted by the Institution, year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3510	3348	3179	3010	2910
File Description			Document	
Institutional data in prescribed format			View Document	

2.4

Number of revaluation applications year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
113	29	287	281	221

3 Teachers**3.1**

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

2021-22	2020-21	2019-20	2018-19	2017-18
700	724	738	727	723
File Description			Document	
Institutional data in prescribed format			View Document	

3.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
206	195	192	181	183
File Description			Document	
Institutional data in prescribed format			View Document	

3.3

Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
255	224	224	224	201
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**

2021-22	2020-21	2019-20	2018-19	2017-18
1089	1059	1054	1063	886
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**

2021-22	2020-21	2019-20	2018-19	2017-18
469	417	417	417	364
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 80****4.4****Total number of computers in the campus for academic purpose****Response: 1255**

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

2021-22	2020-21	2019-20	2018-19	2017-18
315.68	232.68	324.9	329.6	491.3

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:

The Institute has the systematic procedure for development, revision and implementation of curriculum of all the departments.

The Curriculum is designed to ensure that the students have the required domain knowledge, skills and attitude. The factors considered for design of curriculum are: (i) Model curriculum prescribed by AICTE, (ii) Curricular structure of CSVTU, (iii) The Program Specific Criteria of professional bodies, (iv) Suggestions by industry experts and alumni, (v) Syllabus for various competitive exams like GATE, IES, etc, (vi) Syllabus of various reputed Indian and International Universities, (vii) Recent technological developments in the domain.

Institute focusses on Outcomes-based Education, , with well-defined and informed Objectives and Specific Outcomes at program and course level. They are framed focusing on the local, regional, national and global developmental needs. PSOs and COs are outlined in such a way to translate the spirit of the POs achieved partly at the end of every course and wholly at the completion of every programme.

Relevance to Local and Regional Needs

The Institute offers a variety of programs that focus on local expertise and needs of Chhattisgarh state. Chhattisgarh is rich in mineral resources. Many steel Industries, cement industries, automation industries and electrical generation unit are located in the state. Bhilai is stated as the steel city due to the location of Bhilai Steel Plant the flagship unit of Maharatna company, Steel Authority of India Ltd (SAIL) . Many startups related to IT Industry has also been established in the state. Institute has a good connect with the local Industries as they are also the part the Governing Body and Trust.

Since the Institute offers B. Tech Civil Engg, Mechanical Engg and Engineering in circuit branches and IT sector , the curriculum is designed keeping in view of the needs of the above industries. Industry experts are involved in framing the syllabus and are the part of BoS. Institute has recently also focused on skills required by the Industries and hence offers B.VoC course. M.Tech in Environment Engineering offered by the Institute helps the local steel industry to find solutions to the environmental hazard caused during the process of manufacturing steel. Part time MBA offered by the Institute helps the local Industry personnel to pursue the management program during the evening hrs.

Fostering Global Development among Students

The Institute in the process of developing the curriculum takes into consideration the recent technological development at the global level and the skills required for the same. Depending on these inputs , the

required courses are incorporated in the curriculum .

Institute has tie ups with International Universities for academic and research collaboration. The research links established with universities enable close interaction in the form of mutual visits, joint supervision of research, organization of events and collaborative research. Such initiatives foster global competencies among students. The curriculum is designed to enable students to be successful in national and international examinations.

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

Response: 52.17

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

Response: 23

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

Response: 12

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	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: 30.61

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

2021-22	2020-21	2019-20	2018-19	2017-18
271	247	195	195	195

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	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: 19.39	
1.2.1.1 How many new courses are introduced within the last five years Response: 140	
1.2.1.2 Number of courses offered by the institution across all programmes during the last five years. Response: 722	
File Description	Document
Institutional data in prescribed format	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: 60	
1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented. Response: 18	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	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:

Institution integrates cross cutting issues relevant to gender, environment and sustainability, human values, and Professional Ethics into the Curriculum as prescribed by the AICTE.

Courses to address Environment and Sustainability:

The curriculum includes various courses that address Environment, concern for environment, awareness on hazards for environment. For example the first year B.Tech. program includes a i core course on “Environmental & Ecology” based on the AICTE mandatory guideline. In addition to the above institute core courses, individual programs have also included additional courses to address Environment and Sustainability such as Environmental Impact Assessment , Environmental Studies and Solid Waste Management by Civil Engg. Solid Waste Management by Civil Engineering Department is an open elective offered to all B.Tech branches in prefinal year.

The curriculum of Post graduate program in Environment Science & Engineering offered by Civil Engineering Department includes courses to address Environment and Sustainability such as Sustainable Construction, Atmospheric Environmental, Pollution and Control, Industrial Wastewater Treatment, Hazardous Waste Management and Ecology and Environmental Impact Assessment. Through these courses, students are sensitized to ecological and environmental issues connected with land, air, and water, with awareness on sustainable development

Courses to address Human Values and Professional Ethics:

The curriculum of undergraduate programs includes various courses to address Professional Ethics and Human Values. For example: The course on Indian Culture & Constitution of India, and Essence of Indian Knowledge Tradition is included to develop human values and professional ethics in the students. The curriculum also includes courses on Universal Human Values, Cyber laws & Ethics. and Value Education to inculcate values and ethics.

The curriculum of post graduate programs includes courses to address Human Values and Professional Ethics. Postgraduate program in Business Administration include courses such as , Business Ethics and Corporate Social Responsibility, Business Management & Ethics .

In the present curricular structure, specific course to address gender is not included. However, the campus ambience, the work culture provide opportunity for students to demonstrate professional behaviour. The campus is proud to have about 60% boys and 40% girls students. The Women Cell and the Anti-sexual harassment committee continuously offer various programs like Debate, seminar, panel discussions on gender sensitization. The impact of these programs is evident through the confidence portrayed by all students irrespective of their gender.

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

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

Response: 208

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

2021-22	2020-21	2019-20	2018-19	2017-18
70	44	32	31	31

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document

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

Response: 100

1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3514	3353	3181	3013	2913

File Description	Document
List of students enrolled	View Document

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

Response: 90.89

1.3.4.1 Number of students undertaking field projects / internships / student projects

Response: 3194

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	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: A. All 4 of the above

File Description	Document
URL for stakeholder feedback report	View Document

1.4.2 The feedback system of the Institution comprises of the following :

Response: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
URL for stakeholder feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 89.25

2.1.1.1 Number of students admitted year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
957	907	970	948	807

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1089	1054	1054	1063	886

File Description	Document
Institutional data in prescribed format (Data Template)	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 (exclusive of supernumerary seats)

Response: 29.74

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

2021-22	2020-21	2019-20	2018-19	2017-18
189	132	104	114	89

File Description	Document
Institutional data in prescribed format	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:

At BIT DURG, we believe in outcome-based learning processes, where we identify students as slow learners and advanced learners based on the prerequisite tests, class interaction and test performances.

The institution appraises the learning levels of each and every student right from the time student is admitted to the Institute.

Advanced Learners: Advanced learners are provided several opportunities to develop their knowledge and skills.

1. Encouraged to participate and present papers in various seminars/ conferences/ workshops/inter college competitions.
2. They are encouraged to participate in various co-curricular activities such as debates, problem solving, design competitions, Technical fest etc.
3. Guiding and encouraging to communicate research papers in conferences/Journals
4. Guiding the students for GATE/Competitive Examinations.
5. Guidance for career planning.
6. The Institution also encourages students and faculty members a platform to do research work and pursue NPTEL courses.
7. Students are encouraged to participate in various Project Competitions and Hackathons.
8. Library provides extra learning material to the top seven students of each branch and semester.

The academic achievements of the students are extremely motivated and highly praised by the college. Students, securing Ranks in the University Examination, are honoured with Medals and cash prize. Recently Awards such as All Rounder Award, Best Sportsperson, Best In Academics were given to the students sponsored by Bank Of Baroda.

Strategies adopted for slow learners

The Institute ensures that a slow learner clears all his courses within stipulated four years of Engineering and also provides extra attention to build additional skills which makes them employable

1. 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 struggling learners to improve subject knowledge and helps them catch up into their peers.
2. Peer to peer learning : In our Institute Advanced learners have prepared You Tube lectures of the curriculum which has benefitted the slow learners to a great extent.
3. Group Study System is also encouraged with the help of the advanced learners.
4. Academic and personal counselling is given to the slow learners by the tutor, mentor and the

counselling cell.

5. Bilingual explanation and discussions are imparted to the slow learners after the class hours for better understanding.
6. Provision of providing simple and standard lecture notes/course materials.
7. Through a mentor-mentee system also all kinds of support are provided to the slow learners.

File Description	Document
Link for Additional Information	View Document

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

Response: 17:1

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:

BIT, Durg believes in student centric methodologies of teaching learning including experiential learning, participative learning and problem-solving methodologies.

Following student-centric methods are used by the faculties for enhancing the learning experience.

Experiential learning:

Experiential learning is the process of learning through experience by doing and reflecting. Students are encouraged to practice various technical and non-technical skills through project development, student seminars, student development programs, workshops, internships and industrial visits. Tailor made activities are designed, conducted and monitored as per students requirement to meet industry standards. The faculty ensure that students are practicing the required skills, and the same is reflecting on their experiences and improving their skills.

Few are some examples:

Demonstration of concept of Rotating Magnetic Field:

In the subject of Electrical Machines the concept of rotating magnetic field is crucial to understand the operation of most of the rotating electrical machines. In order to make students have vivid concept, an experiment has been set up in the Electrical Machines Lab, by energizing the stator of a 3-phase induction machine, with rotor removed and a small iron ball is shown to rotate in the influence of rotating magnetic field.

Development of programming skills through Simulators:

In the subject of Microprocessor and Peripherals, Advanced Microprocessors and Peripherals, , use of Simulators of 8085 and 8086 microprocessors has been demonstrated. This way the students were able to write many programs on their own, debug for errors, and verify the instructions of the microprocessors.

Demonstration of construction of Electrical Measuring Instruments using cut-view models:

In order to give better insight to the understanding of construction of electrical measuring instruments and their parts, cut-view models of instruments are used to in the Measurement Lab. Students of Electrical and Electronics Engineering are able to clearly visualize the drive system, control system and damping system of the instruments.

Participative learning:

We always strive to enhance the learning experience of learners in class through various interactive and participatory approaches apart from traditional teaching. These approaches aid in creating a feeling of responsibility in learners and makes learning a process of construction of knowledge. Some commonly applied participative techniques by our faculties are Flipped Classroom, Peer to peer learning, Group Discussion etc. Minor and major project courses from second year to final year have been introduced for the practical implementation of the principles and thereby enable participative learning.

Problem solving methodologies:

The curriculum ensures problem solving capabilities to developed as it is one of the program outcomes of B.Tech and MBA Program. Competitions such as Hackathon, Ideathon and BITShine are yearly organized to promote problem based learning.

The core courses of the Engineering and Management discipline focuses on critical thinking and problem solving.

- Case study method is adopted in teaching learning process to develop logical thinking and problem solving ability among the students.
- Students are supposed to undertake research projects by identifying a research problem and need to propose practical solutions to deal with the issue.

File Description	Document
Any additional information	View Document

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

Response:

Teachers use ICT enabled tools along with traditional mode of instruction for effective teaching and learning process. The Institute provides the necessary infrastructure for using ICT tools during the process of teaching.

- The departments are well equipped with ICT equipment like Projectors, HD webcams with inbuilt mic and speakers, dedicated internet connection (LAN and Wi-Fi), laptops to carry out online classes along with one 75" Benq make smart interactive panel board.
- The PPTs are enabled with animations and simulations to improve the effectiveness of the teaching- learning process.
- For teaching engineering and mathematical subjects through online mode, teachers are using various online tools like openboard, Jamboard in Google meet, etc.
- Faculties have created video lectures and uploaded in appropriate platforms for students to use as an extra learning resources.
- Online quizzes and polls are regularly conducted to record the feedback of the students. IIT Virtual lab is used for creating multiple students accounts where in the faculty can monitor the practical performance of the students.
- Various information related to Teaching Learning like scheme, syllabus, attendance, sessional marks, results of previous examinations can be retrieved using Institute ERP portal as well as available on the Institute website.
- Use of Google classroom (GCR) to manage and post course related information- learning material, quizzes, lab submissions and evaluations, assignments, etc.
- Online drawing tools like concept maps, mind maps, are used to perform student centric activities.

File Description	Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)**Response:** 17:1**2.3.3.1 Number of mentors ?????????????? ???????****Response:** 206

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Any additional information	View Document

2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution**Response:**

Institute prepares and adhere to the Academic Calendar in order to ensure the quality and smooth conduction of teaching learning process.

- Academic calendar for each session is prepared by the IQAC Cell. The IQAC cell puts forth the proposed academic calendar in the head of the Institute. The head of the Institute in consultation with the head of the departments incorporate the required changes. The academic calendar of the session is then finally approved by the Academic Council.
- Departmental Academic calendar for a session is then prepared by the respective departments with micro detailing of all the activities scheduled for the session based on the institute academic calendar.
- Academic calendar of that session is provided to each faculty member and displayed on the departmental notice boards before commencement of each semester.
- Lesson plan is prepared by each faculty member according to the academic calendar provided.
- Activities like class test, class test marks display, student feedback of teaching learning, internal assessments for labs, practical exams, sessional marks submission to university and other activities are conducted as per the calendar.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	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:** 85.08

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	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.Litt. during the last five years (consider only highest degree for count)**Response:** 32.32**2.4.2.1 Number 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**

2021-22	2020-21	2019-20	2018-19	2017-18
72	65	62	58	53

File Description	Document
Institutional data in prescribed format (Data Template)	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:** 13.76**2.4.3.1 Total experience of full-time teachers**

Response: 2833.79

File Description	Document
Institutional data in prescribed format	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: 42.6

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

2021-22	2020-21	2019-20	2018-19	2017-18
68	33	34	41	37

File Description	Document
Institutional data in prescribed format (Data Template)	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

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	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 including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

Response:

Examination Management System of the Institute follows the guidelines prescribed in the Exam Manual. The Institute publishes the academic regulation and exam manual . Based on the feedback of the stakeholders continuous improvement is incorporated in the academic regulation and exam manual. Presently the Exam Manual version 1.1 is in practice.

Institute follows an objective, comprehensive, student-centered and credible Examination Management System ensuring the integrity of the Institution. The Examination pattern consists of three components,

namely, Class Tests (CT), Teachers Assessment(TA) and End Semester Examination (ESE)

Examination Management System : The Office of the Controller of Examinations integrated the Information Technology in the management of Examination System. Mark entry, Grade, Percentage and Cumulative Point Average (CPA), preparation and analysis of results are automated. The result preparation is being carried out using customized ERP Software. The mark statement of every semester is accessible to restricted users, especially to the Heads of the Departments to assess the performance of students periodically and guide them properly. Challan for the payment of Examination fee and hall tickets are computer-generated. The payment of Examination Fee has been upgraded to online mode. The students can login to the portal of the Controller of Examinations for downloading their hall tickets. Students have access to view their overall marks of the academic performance in the College website by logging in with their Roll Number and validating it with the Personal IDs. Furthermore, the students can view all the notices and circulars pertaining to the matters related to examinations released by the Office of the Controller of Examinations through website.

Valuation of Answer sheets has also been carried out using inhouse software developed for Digital valuation which involves the encryption of the roll numbers of the students.

Continuous Evaluation:

The curricula of different programmes have been incorporated in the Outcome Based Education (OBE) structure and the evaluation pattern has also been modified accordingly. It helps the Institution in terms of assessing different levels of knowledge of the learners based on the Revised Bloom's Taxonomy. This structure facilitates adopting required changes in the teaching and learning process and also knowing the outcome levels of the learners in the evaluation process.

Continuous assessment has three parts : two Class Tests (CT), Teachers assessment(TA) and End Semester Examination. Teachers assessment (TA) valuation is based on various classroom performance and activities, such as Assignments, Quizzes, Activity Based Tests, Seminars so on under the discretion of the concerned course teacher pertaining to the nature of the course.

During the COVID-19 situation, the College conducted the Continuous Internal Assessment Tests and Summative Examinations Online in the proctored mode. Assignments and Quizzes were conducted through inhouse developed Learning Management system module of the Institute. Presently the ERP exam management module is used to analyze and prepare the result.

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

Institute has implemented the Outcome based Education system. The procedure and systems are developed by IQAC cell of the Institute and then shared with the departments for implementation.

Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) are framed by the department following extensive consultation with all faculty and stakeholders, in strict conformity with the objectives of Outcome Based Education (OBE). Course Outcomes (COs) are defined for every course, and are statements that describe the competencies gained by the student through the course. The Course Outcomes (CO) are formulated by the Department in consideration with the course teachers and with expected cognitive, affective and psychomotor learning levels. Every CO is aligned to one or more POs, and is measured at the end of the course, through various assessments, designed specifically to effectively measure the CO and contribute to the PO to which it is mapped.

The HODs along with the faculty members provide information to students, raise awareness, and stress the importance of achieving the PO's. The introductory lecture for all courses are meant for communicating the COs to the students. Students also learn about COs, level of Blooms Taxonomy and Performance Index question wise and unit wise via the internal assessment question paper. OBE helps the learners to achieve higher order learning levels based on Revised Bloom's Taxonomy, master the courses, and develop different skills as expected in each course. COs are revised, if a need be, after seeking approvals from the department level committee. COs are redefined time to time based on attainment level to improve overall knowledge of students. The Course Outcomes and PSOs are being communicated to the stakeholders thorough the following:

Syllabus: All courses of the curriculum have well defined Cos. The Couse Objective and Course Outcomes are mentioned in the syllabus of each course.

Website: The Departmental information on the website mentions the vision , mission, PO and PSO of the Department. The syllabus of all programs offered by the department is uploaded on the College website which includes the COs of various courses of the curriculum.

Vision, Mission, POs and PSOs are also communicated to students by displaying in the classrooms, laboratories, department Notice boards, HOD room and Seminar Hall. They are also being published in Prospectus and Institute annual magazine Panorama.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Response:

Response:

Institute focuses on continuous evaluation procedure for assessing the attainment of program outcomes, program specific outcomes and course outcomes. The system thrives to set the appropriate targets along with continuous improvement procedure for attainment of COs, PSO, POs.

Attainment of COs and POs are measured at different stages of the Program: The Course Outcomes are

assessed after the completion of each course and the Program Outcomes are measured at the time of completion of the Programme. The framed COs for a course are measured using continuous assessment Evaluation Scheme. Some of the most common assessment tools used for computing CO attainment are: The Direct Assessment Tools given by performance in Continuous Internal Evaluation (CIE) and Semester End Examination (ESE). Continuous internal assessment includes two Class Tests (CT), Assignments, Quizzes, Activity Based Tests and Seminars.

The questions given in the internal tests are mapped to the framed COs which in turn are already mapped with the POs with a mapping level. The same kind of process happens for the Quizzes, Assignments, and Lab works. A clear Rubrics is framed for the Project evaluation considering all the quality parameters. This rubrics which is announced to the students at the beginning of the semester is used to assess the projects.

At the end of the program, the POs/PSOs are computed using the CO computation value of all the COs that are mapped to a PO/PSO. The PO/PSO computation are done using the weighted average of all the COs that are mapped to that PO/PSO.

After the computation of POs/PSOs, a thorough analysis on these attainment levels is done by the department. This analysis includes finding the weak areas towards the attainment of POs/PSOs and a detailed plan of action of various events which help in the further attainment of the POs/PSOs.

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 99.58

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 944

2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 948

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
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

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

Yes Institute has a well defined policy for promotion of research which is also uploaded on the institutional website. The Institute provides adequate facilities in order to implement the research policy.

In order to implement the research policy the Institute has a Research & Development and Intellectual Property Right (IPR) Committee to promote research, maintains the record of research activities in the institute and monitors the various funding agencies website, identifies the call for sponsored project proposals, deadlines etc. The R&D committee of the Institute works in three distinct aspects viz., advanced research, innovation and imparting standards among all the research scholars. To promote research and innovation, innovative labs have also been established such as AICTE Idea Lab, Texas Instruments Innovation Lab. The R&D committee is headed by a Prof. Incharge and other faculties as members.

Ten Departments of the Institute are approved as research centers to pursue Ph.D and carry out R & D activities. The Institute also has the Departmental Research Committee (DRC) to plan, monitor and address issues of the research work in various disciplines. Departmental Research committee is headed by the Principal as the Chairman of DRC along with the University appointed expert and departmental senior faculty as members of DRC. Department is allocated a separate budget for research & development. Management encourages faculty members to procure equipment and facilities necessary for research. Plagiarism software Turn it in is available at the Institute level for faculty and students.

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: 1.78

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).

2021-22	2020-21	2019-20	2018-19	2017-18
2.64	0.58	0.44	3.13	2.1

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document

3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 0.1

3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	1	0	0	0

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research

3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response: 661.47

3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
125.1	26.79	73.60	368.18	67.80

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by government and non-government	View Document

3.2.2 Percentage of teachers having research projects during the last five years

Response: 5.33

3.2.2.1 Number of teachers having research projects during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
5	14	23	3	6

File Description	Document
Names of teachers having research projects	View Document

3.2.3 Percentage of teachers recognised as research guides

Response: 25.73

3.2.3.1 Number of teachers recognized as research guides

Response: 53

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 38.33

3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4	5	7	3	4

3.2.4.2 Number of departments offering academic programmes

2021-22	2020-21	2019-20	2018-19	2017-18
12	12	12	12	12

File Description	Document
List of research projects and funding details	View Document
Paste link to funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

Response:

Yes. Institute has created an eco system for innovations, creations and transfer of transfer of knowledge

supported by dedicated centres for research, entrepreneurship and Incubation . It has established nine cell/centre/ labs /Clubs such as Entrepreneurship Development Cell, MSME Incubation Cell , Institution Innovation Cell (IIC), AICTE IDEA Lab, Brain Tech Incubation Centre, Texas Instruments Innovation Lab, Centre of Excellence for Machine learning, Start-up Club and Innovation Club to create the required ecosystem.

Entrepreneurship Development Cell - The ED Cell of Bhilai Institute of Technology, Durg plays important role to identify entrepreneurial ability of students and directs them to establish their own enterprise in various sectors. ED cell has been established in the year 2006 sponsored by AICTE The cell intends to develop the economy scale by promotion of entrepreneurship. Thus, EDC aims to create a platform for its members to emerge as successful entrepreneurs by converting students from job seekers to job providers. Eminent industrialists and promising entrepreneurs are often invited to motivate the young students. The successful alumni of BIT, Durg pursuing the entrepreneurial route also encourage our students through frequent interactions.

File Description	Document
Upload any 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: 152

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.

2021-22	2020-21	2019-20	2018-19	2017-18
31	27	33	26	35

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	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: A. All of the above

File Description	Document
Any additional information	View Document

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years

Response: 3.62

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 192

3.4.2.2 Number of teachers recognized as guides during the last five years

Response: 53

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

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

Response: 5.24

3.4.3.1 Number of research papers in the Journals notified on UGC website during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
179	149	169	245	261

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years

Response: 1.74

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

2021-22	2020-21	2019-20	2018-19	2017-18
94	70	47	55	67

File Description	Document
List books and chapters in edited volumes / books published	View Document

3.4.5 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

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

Response:

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document

3.5 Consultancy

3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 133.21

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

2021-22	2020-21	2019-20	2018-19	2017-18
20.36	33.59	10.62	56.45	12.19

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Response: 31.84

3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0.96	1.56	0.25	12.89	16.18

File Description	Document
List of facilities and staff available for undertaking consultancy	View Document

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development through the NCC and NSS unit.

As per the guidelines of CSVTU, the Institute has formed a NSS unit of students and faculties. Bhilai Institute of Technology became the first Institute of Chhattisgarh Swami Vivekanand Technical University, Bhilai having two units of 100-100 both for Boys (co) and Girls. NSS Unit has also adopted the Bhanpuri village. The NSS unit in the college provides a platform for various social services under the guidance of Professor incharges of NSS.

1. Dr. S.N Siddique
2. Mr Abhijeet Lal

There are various camps that the NSS conducts and each of them broadly fall into one of these four categories:

Cleaning
 Afforestation
 Stage shows or Procession creating awareness on social problems, education, cleanliness etc.
 Inviting doctors for health camps.

NCC:

The Institute has formed a NCC unit of students and faculties. It consists of ARMY wing of NCC with SD 52 cadets (Boys) and SW 54 Cadets (Girls). The NCC aims at developing character, comradeship, discipline, a secular outlook, the spirit of adventure and ideals of selfless service amongst young citizens. NCC Prof. incharge is Dr. Santosh Mishra.

File Description	Document
Upload Any additional information	View Document

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

Response: 55

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.

2021-22	2020-21	2019-20	2018-19	2017-18
21	15	11	4	4

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 296

3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
57	57	47	42	93

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	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: 60.12

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.

2021-22	2020-21	2019-20	2018-19	2017-18
618	1699	2886	2268	1932

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 9.4

3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2021-22	2020-21	2019-20	2018-19	2017-18
9	6	22	7	3

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document

3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 26

3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
6	5	3	5	7

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

BIT, Durg has always inspired to achieve academic excellence through its human resource and well-developed campus spread across 34.6 acres of green campus. The Institute also strives to create infrastructure and other facilities to provide a good teaching-learning environment. Infrastructure is equipped with modern facilities and learning resources at par with best in the industry with state-of the-art computing and research facilities. Activities are planned

for optimal utilization of the available physical infrastructure.

The infrastructure facilities and learning resources are categorized as under:

1. Learning Resources include resources and infrastructure required for library (departmental as well as central), laboratories, IDEA lab, Innovation centre, computer centres, class rooms, digital classroom, seminar hall for events like meetings and conferences. There are about 71 lab rooms, 80 Classrooms, 10 seminar halls in order to carry out teaching learning at the Institute. Seminar halls are equipped with Interactive panels and audio visual systems.
2. Support facilities include hostels (separate for boys & girls), dispensary, mess, canteens, bank, students' store, security, auditorium, sports complex, indoor sport arena, gymnasium. Whole campus is under CCTV surveillance through the latest IP based network through 191 cameras.
3. Utilities include safe drinking water, restrooms and power generators.
4. Sustainable Infrastructure: Renewable energy source in campus with Solar Photovoltaic Power Plant of 200KWp capacity of cost worth Rs 80 lakhs.
5. Computing Equipment: Institute has two HP Blade Servers – 9th generation (provision for 8 blades), Each with 2 processors @1.60 GHz and Hard Disk of 1TB / RAM 32 GB. It has also two Academic servers (Tower Servers), Each with 2 processors @2.80 GHz and a Hard Disk of 1TB / RAM 2.5 GB. Institute also has Security Services which includes Firewall – FORTIGATE 300E and Anti-Virus - Seqrite End Point. There are 14 Computer Centres in the Institute with 1225 Desktops, 115 Laptops & 5 Servers, 61 Printers. Institute has 01Gbps 1:1 Internet Lease Lines. Wifi connectivity in Campus and Hostels. There are 23 Licensed softwares available in various departments.

File Description	Document
Upload Any additional information	View Document

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

Response:

Institute has adequate facilities for cultural activities, yoga, sports and games. The outdoor facilities for Badminton, Volley ball, Cricket, Football, Basket ball are available. A separate indoor games facility for playing Badminton, Table-tennis, carom and chess is provided and it is being used by the students regularly.

Indoor gymnasium with an area of 450 sq.mts. is available with modern fitness equipments.

Auditorium:

The college has an open and closed auditorium. All the college events are regularly conducted in this auditorium. The closed auditorium with an area of 1050 sq.mts. and has a seating capacity of 500 audience.

File Description	Document
Geotagged pictures	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 70

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 56

File Description	Document
Institutional data in prescribed format	View Document

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

Response: 29.88

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
86.1	54.16	96.2	108.1	179

File Description	Document
Upload audited utilization statements	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

Library is automated using Integrated Library Management System and the details are below

Name of the ILMS software: KOHA

Nature of automation (fully or partially): Partially

Version: 17.05.07.000

Year of automation: 2017

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
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	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: 23.92

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
18.40	20	30	23.50	27.68

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	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 latest completed academic year

Response: 50.99

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

Response: 1897

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities

Response:

The entire IT facility is managed by centrally by CCF (Central Computing Facility) at BIT durg.

Hardware

All the necessary IT Facilities like Computation ResourcesDesktopsLaptopPrinterScannerHardDisk Drive/USBLCD Projector are available in sufficient number. Till the year 2022 we have 1225DESKTOPS,115LAPTOP, 67Printers, 18Scanners 22 HDD 63 LCD projector with us.

Software

The total Life Time Licensed Software Purchased are 24 in number.The details are ANSYS 8, CATIA V-5 (3 USERS), SOLID WORKS (10 USERS), LABVIEW, UtiBoard, Commsim, PTC PRO-E WILDFIRE MulitSim-8,11, Xilinx, Qual Net (Sim. Comp. Networking), Visual Prolog 7.3 , Oracle Database 11GSE,

Net Sim, Qual Net (Sim. Wireless Lib & Zigbee), ADAMS – 2013, SIMUL 8, Multisim, ANSYS 16.2, ANSYS 16.1, PTC CREO for 3D CAD/CAM/CAE, MATLAB 2018 B, Quick Heal Antivirus, Microsoft Camp License (130), Turnitindia – Plagiarism etc.

Networking and Wi-Fi

The 24*7 internet connection is supported by Secured Wi-Fi access via **INTERNET LEASED LINE– (1010 Mbps) having 1000 Mbps – ISHAN Pvt Ind Ltd.** Fiber Optic Leased Line and **10 Mbps – BSNL NME** Fiber Optic Leased Line has been provided to all users in the campus and both boys and girls hostel. All the academic buildings are fully wi-fi enabled. During the period of lockdown due to Covid pandemic, classes were conducted on-line for students in all courses. The CCF is responsible for the ongoing maintenance and support of the Network, exclusive of local applications. Problems within the college network should be reported to CCF.

The year wise upgradation in availability of Bandwidth is as below

2017-18: 110 MBPS, 2018-19: 55MBPS, 2019-20 145 MBPS, 2020-21: 800 MBPS, 2021-22: 1110, 2022-23 1010 MBPS.

ICT –enabled Facility

Every department has one ICT Enabled Seminar Hall and one smart Class room.

CCF Budget

The budget allocation for IT is in line with the existing requirement and foreseeing the future ones. The budget for the year 2017-2018, 2018-2019, 2019-2020, 2020-2021 and 2021-2022 was 75 lakhs, 100 lakhs, 90 Lakhs, 94 Lakhs and 95 Lakhs Respectively.

The actual expenses are 6968406 (Sixty-Nine lakhs Sixty-eight thousand four hundred and six), 7201314 (Seventy-two lakhs one thousands three hundred fourteen), 3892168 (Thirty-eight lakhs Ninety-two thousand one hundred sixty-eight), 4397249.00 (Fourth three lakhs ninety-seven thousand two hundred forty-nine) and 8711563.00 (Eighty-seven lakhs eleven thousand five hundred sixty-three) respectively.

File Description	Document
Upload any additional information	View Document

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

Response: 3:1

File Description	Document
Upload any additional information	View Document
Student - computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution.

Response: 750 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4 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
Institutional data in prescribed format	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: 32.31

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

2021-22	2020-21	2019-20	2018-19	2017-18
102.7	80.18	106.10	117.24	129.27

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	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 Management, Principal and faculty actively participate in designing the procedures and policies for maintaining and utilizing physical, academic and support facilities. The policy statements and action plans are formulated, after careful consideration to all the stakeholders, by the management. IQAC Committee regularly conducts meetings to frame the procedures and policies as per the requirement of the Departments. Institute allocates a separate budget for maintenance of infrastructure, facilities and equipment.

Infrastructure Maintenance: Periodically all the buildings are inspected and repairs are carried out as per the maintenance budget. All the buildings are painted once in two years with quality paint. Wall cracks and roof cracks are identified and filling is done by using suitable materials. All the roads get tarred once in five years. Lawns, Plants Trees are well maintained within the campus. The safety and security requirements are well ensured within the campus. Maintenance of Air Conditioners, Reprographic facility and Water aquaguard is done through Annual Maintenance Contract.

Electrical Maintenance: The site office section of the administrative block of BIT takes care of electrical maintenance work. Also the Maintenance of Diesel Generators. UPS systems and its batteries. Ensuring the proper earth connection for various equipment in the labs and class rooms. Site office also takes care of the maintenance of solar panels battery and high mast tower area lighting.

Laboratory facility: Maintenance of lab instruments and equipment are taken up by the respective departments as and when required. The equipment and machineries in the laboratory/workshop are maintained by the lab In-charge(s)/ Workshop In- Charge(s) under the guidance of HOD

Computing Facility: BIT, Durg has an AMC for maintaining the computing facility in the institute. Central Computing Facility(CCF) department caters to the computing facilities and maintenance of the same at the institute level. This department provides the integrated IT services like smooth running of automation, up-gradation and maintenance of automation package, college website, biometric services, troubleshooting of hardware, networking equipment including internet connectivity, procurement of hardware, software.

Sports Complex: Institute has a sports committee. The Sports Professor incharge and its team takes care of sports facilities and its maintenance.

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 Government during last five years

Response: 12.47

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2021-22	2020-21	2019-20	2018-19	2017-18
576	411	376	322	326

File Description

Document

upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

Institutional data in prescribed format

[View Document](#)

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 1.99

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2021-22	2020-21	2019-20	2018-19	2017-18
5	15	21	120	137

File Description

Document

Institutional data in prescribed format

[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
Details of capability enhancement and development schemes	View Document
Link to Institutional website	View Document

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

Response: 18.9

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

2021-22	2020-21	2019-20	2018-19	2017-18
927	1222	315	307	337

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document

5.1.5 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 placement of outgoing students during the last five years

Response: 53.72

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

2021-22	2020-21	2019-20	2018-19	2017-18
727	481	382	290	371

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

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

Response: 11.6

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 110

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document

5.2.3 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: 30.96

5.2.3.1 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

2021-22	2020-21	2019-20	2018-19	2017-18
84	99	125	98	133

5.2.3.2 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

2021-22	2020-21	2019-20	2018-19	2017-18
260	340	410	310	425

File Description	Document
Upload supporting data for student/alumni	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	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 level (award for a team event should be counted as one) during the last five years.

Response: 108

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.

2021-22	2020-21	2019-20	2018-19	2017-18
9	14	26	33	26

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years	View Document
e-copies of award letters and certificates	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

Institute facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities. The student representation on various bodies such as IQAC and student council. The students are also part of various other bodies/ committees such as

- **Training & Placement coordinators:** Students are nominated as placement coordinators and members to work in coordination with Training & Placement cell.
- **Editorial members:** The Institute publishes the magazine named as **PANORAMA** yearly. The students committees are a part of the editorial board. Various departments also publish departmental newsletters. The students are also part of the editorial board of departmental newsletter.
- **Co-curricular and Extracurricular activities :** At BIT Durg , we have more than ten clubs Astro club, Clicks club, Technoclub, PAC club, Developer student community club, Innovation club, Vista Club, Quizzbiz club, Startup Club, public speaking club to ensure holistic development of the students and conduct various co-curricular and extracurricular activities . Respective Club student team comprising of Convenor , Organizing Secretary and Executive Members are responsible for planning & organizing all the extracurricular, co-curricular events and prepare an event calendar of the concerned club. This develops the managerial and leadership skills among the students. All the events are organized as per the standard procedure set by the institute.

Student committees are also involved in organizing the Annual college FEST OJAS, plethora of workshops and skill development sessions across the academic calendar activities that define the life of a student at BIT. Right from the orientation of the First-year engineering students, to the farewell of the Graduating students, the students play an integral part in the organizing team and execution of these activities.

The college allocates significant funds for the smooth conduction of all the major activities. Students are also involved in making a detailed budget and marketing their various events to procure funds.

- **Professional Bodies Committee:** The Institute has a student chapter of Institution of Engineers, India IEEE, Computer Society of India, Indian Society of Technical Education (ISTE). Each student chapter is led by a faculty member as branch counsellor with student core team formed by proper interview process. The selected students are nominated as convenors and representatives of the above professional bodies.
- **Class Representatives (CR):** Each class of a department is normally represented by CR. The responsibilities of a class representative include helping administration in class room maintenance, coordinating with teachers in academic activities, acting as a bridge between the students and teachers etc.

Involving the students in various administrative bodies has made them more responsible and strengthened their bonding with the institute and this has resulted in many of them coming back to contribute to their alma mater.

File Description	Document
Upload any additional information	View Document

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year**Response:** 57.6**5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

2021-22	2020-21	2019-20	2018-19	2017-18
68	83	50	18	69

File Description	Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	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:**

Institute gives adequate impetus to have well activated network of alumni. Alumni are the most important of all stake holders and thus Institute has initiated and implemented the process to connect with them. Bhilai Institute of Technology, Durg - Alumni association is an independent society registered on August 28, 2014 vide certificate C.G. State – 4869 under the Societies Registration Act, 1973.

Mission: The Mission of the Alumni Association is:

- Provide a vibrant platform for interaction between the alumni, staff and students of the Institute
- Contribute to the Institute's vision of being recognized among the world's leading institutions in academics, research, outreach, and innovation.
- To enable the alumni to contribute for the general development of the Institute.
- To give prizes, scholarships, and render financial aid to deserving students of the Institute.
- Function on charitable basis, and to run the Association on 'no profit no loss' basis
- To further such other aims as the General Body may decide from time to time.

Alumni meet is organized on yearly basis by the Alumni Association, which facilitates various alumni meets at Institute level and other cities as well. The alumni interact with the students, where They share their experiences and also deliver lectures to the students on various specialized areas.

Being a part of Board of studies, alumni are also involved in curriculum development. They also help the students as mentors in selecting topics related to their projects and internships. They also provide assistance in placement by bringing campus drive to the Institute and train the students by conducting mock interviews, guides on industry requirement and prepare them for the challenges in the corporate world.

Resources are also raised by the alumni at the time of medical emergencies. Alumni help students in developing entrepreneurial skills by sharing their experiences. Presently Alumni team has identified and recognized ten group of students for the innovative ideas , provided them with a seed money of Rs 50, 000 to each group to develop their products and also further mentoring them in their entrepreneurship journey. Alumni also give away Awards on yearly basis to the current students for their outstanding academic achievement.

File Description	Document
Any additional information	View Document

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

Response: E. <2 Lakhs

File Description	Document
Any additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

Response:

Bhilai Institute of Technology(BIT), Durg established in the year 1986 with the support of Bhilai Steel Plant a unit of SAIL. It is the first self financed Institute in the undivided Madhya Pradesh. It is also the first technical Institute in state of Chhattisgarh to be conferred with Autonomous status in July 2020.

Vision: To become one of the Premier Technical and Management Educational Institutions in the country, delivering excellent professional education, creating value based globally competitive professionals and achieving excellence in all our endeavor.

Mission: Putting in well directed and honest efforts to create peace, prosperity and growth for all stakeholders by exhibiting team work, commitment and zeal to excel in all our endeavor and striving to be the best.

Quality Policy: To provide quality technical education to improve the knowledge of the students. This is achieved through faculty up gradation, giving placement assistance, providing opportunities for extracurricular development and updates the students with latest technical developments in the related fields.

Nature of Governance:

Technological excellence and human values are the two key parameters in the vision statement as perceived by the institution. The mission statement spells out the needs of the society in explicit terms, viz. to create peace, prosperity and growth for all.

The Governing Body, Academic Council of the Institute is constituted as per the UGC norms, oversees the operations of the Institute and provides guidelines for proper functioning of the Institute. The Governing Body meets at regular intervals to review the operations of the Institution and provides guidance for further improvements keeping vision, mission and strategic plan in view.

The Principal of the college is the head of the Institution and provides requisite leadership to the system. The Management, Director, Principal, Vice-Principal and the staff / faculty are always stepping in together for designing proper systems to implement the strategies for academic growth in tune with the vision and mission of the Institution . The faculty members are actively involved in decision-making process at their levels.

The head of the Institution is working continuously to ensure all round development of students by providing various co- curricular,extracurricular and entrepreneurship skill development opportunities. Also To enhance research culture amongst the faculty and students, by providing latest research facilities and industry Institute interaction. The governance of the institute ensures to inculcate moral integrity in

students and make them socially responsible good human beings.

File Description	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:

Response:

Institute follows the policy of decentralization and participative management. Institute has a mechanism for delegating authority and providing operational autonomy to all the various functionaries to work towards decentralized governance system.

The Institute involves all the stakeholders in decision making process for framing guidelines and rules & regulations to ensure smooth and systematic functioning of the Institute.

The Institution has in place several Committees / Sub-Committees to continuously monitor/guide the academic and administrative activities. Institute has 22 committees with different roles for effective implementation of the various academic and non-academic matters such as research & development committee, literary committee, women security cell, proctorial board and student grievance redressal cell etc. These committees are constituted with a Professor Incharge with 5 -6 faculties as its members for a tenure of two years.

Also further in order to give opportunities to the faculty members policy has been formulated to appoint Head of the Department (HOD) on rotation basis. At the department level, decisions are taken by various department level Committees. The faculty are actively involved in decision making process. The student representation is in IQAC cell, student council, convenor and executive members of various clubs.

Case Study – Participative Management

The case study pertaining to the college literary committee which works with the mission of developing creative writing and providing aesthetics to the education system of the Institute, is presented here:

Literary committee

Committee Constitution: The Literary committee consist of Professor in-charge with five faculty as its members, works with the well defined student committee, selected and formed by the prescribed procedure set by the literary committee. The student committee consists of Advisor, Convenor, Secretary, Treasurer, Content Head, Graphics Head, PR and Social Media Head, Tech Team Head and Executive members and Members.

Literary Committee Responsibilities : The major responsibilities of Literary committee is to publish

Prospectus for the newly enrolled students, College Magazine (Panorama)- annual magazine of the Institute , Quarterly Newspaper and conducting activities of Literary Club.

Work Delegation: Participative management system has been adopted in the working culture of Literary committee. The Professor Incharge in consultation with the IQAC committee presents the vision of the Literary committee. A detailed strategic plan is developed for its systematic working to achieve its mission. Joint decision making technique is applied in order to have an environment in which team members feel comfortable sharing ideas and responsibilities for efficient working. The similar type of working culture is adopted for other committees as well.

File Description	Document
Link for strategic plan and deployment documents on the website	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

Institute Strategic / Perspective plan prepared by the IQAC Cell is effectively deployed.

One of the successfully implemented Strategic Plan of the Institute laid during (2017 - 2022) was its Autonomous status.

As a first step towards it , Institute applied for NAAC accreditation in 2017 and was thereafter received NAAC accreditation with 'A' grade in Cycle 1. Institute at the same time applied for NBA accreditation of its five Undergraduate programs (B.Tech (Civil Engineering, B.Tech (Electrical Engineering), B.Tech (Computer Science Engineering), B.Tech (Mechanical Engineering) , B.Tech (Electronics & TC Engineering). Its all five undergraduate programs received NBA accreditation in 2017.

As a second step the Institute applied to the UGC for 2 (f) . Institute was included under UGC 2 (f) in 2019.

As a third step , Institute applied to UGC for Autonomous status. In 2020 it became the first Technical Institute to be conferred with Autonomous status in Chhattisgarh .

Since 2020 Institute is developing the systems to prepare robust systems so that autonomous status is effectively implemented such as Academic Regulations, Exam Manual System, revision of curriculum etc.

File Description	Document
Link for 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, service rules and procedures, etc.

Response:

The functioning of the institutional bodies is effective and efficient which is reflected through policy implementation, administrative setup, appointment and service rules. Effective and efficient functioning of the Institute is governed through different administrative section as specified by the UGC gazette and University Ordinance.

Institute is managed by a Trust registered under Chhattisgarh Public Trusts Act, 1951. The Trust consists of Industrialists, Philanthropists, senior bureaucrats, CEOs of large business establishments in the State and elected Public Representatives (Member of Parliament & Member of State Legislative Assembly). The Trust also keeps a watch on the financial health of the Institute. Generally, the Trust meets twice or thrice a year.

Important policy decisions and guidelines formulated by the Trust are executed through duly constituted Boards of Governing Body. Governing body is constituted as per directives of UGC. The Governing body consist of the representatives of BIT Trust, State Government and nominee of the UGC. The Governing Body. meets periodically, reviews the working of the College and issues necessary advice/instructions to the Principal. The Principal of the Institute reports to the Governing Body.

The organization has a well-structured administrative setup with the Board of Trust as the highest decision making body and other functional bodies and committees. Support facilities are provided for smooth functioning of the institute by Finance, Administration, Learning Resource Centre, Computer Centre, Physical Education, Maintenance Cell (both Civil and Electrical) in addition to security services. Various committees such as Anti-Ragging Committee, R&D Committee, Professional Bodies Committee, Grievance committee, etc., have been constituted at the institute level involving faculties and students for smooth functioning of the institution. All these committees function under the overall guidance of Director, Principal and Vice Principal. Various other committees like Literary, Library, sports and Cultural etc. are constituted to help the students in versatile development.

Service rules are in place for the employees of the institute. This provides details on the duties and responsibilities of various categories of employees working in the institute, leave rules, code of conduct, qualifications for recruitment and scales of pay of various categories of employee and Promotion Policy etc.

It is a matter of great pride that in its 36 years of existence, the Institute has been successful in this endeavor, has a very high retention of staff members and has had no disruptions in its academic calendar.

File Description	Document
Link to Organogram of the Institution webpage	View Document
Link for additional information	View Document

6.2.3 Implementation of e-governance in 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
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

Response:

Institute has effective welfare measures for teaching and non-teaching staff

1. Institution administers a contributory provident fund scheme, HRA , gratuity benefits, Group Insurance benefits, Health care benefits etc.
2. Institute grant special leave for attending faculty development programs. Registration fees is also reimbursed for attending conferences, workshops and seminars to the employees.
3. Faculty members are encouraged to pursue for higher education and study leave granted for the same.
4. Financial reward scheme for the faculty members for quality publication in reputed Journals such as SCI/Scopus/ UGC
5. Sanctions Maternity leave as per the service rules.
6. Medical facility to all staff members. Institute has a tie up with the nearby reputed medical hospital for the same.
7. Group Medical Insurance is provided for teaching and non-teaching staff. In case of any emergency, personal loan is also provided to the staff.
8. Need based Training Programmes are arranged by the Institute for the faculty and staff.
9. For non-teaching staff, financial support is provided to pursue skill development.

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:** 15.11**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**

2021-22	2020-21	2019-20	2018-19	2017-18
9	20	21	40	51

File Description**Document**

Institutional data in prescribed format

[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:** 17.6**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**

2021-22	2020-21	2019-20	2018-19	2017-18
24	24	10	17	13

File Description**Document**

Institutional data in prescribed format

[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:** 60.73**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**

2021-22	2020-21	2019-20	2018-19	2017-18
141	153	111	93	87

File Description	Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Institute undergoes Internal and External audit periodically as follows :

Internal audit: Internal audit is conducted quarterly in a financial year i.e. four times in a financial year. The internal auditor provide internal audit report for every quarter with observations and suggestions.

External Audit : External audit i.e. statutory audit is conducted at the end of financial year, and the statutory audit report along with balance sheet is prepared by the statutory auditor.

6.4.2 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: 0

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

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

Response:

Institute maintains & follows a well-planned process for the mobilization of funds and optimal resource. The process involves various committees of the Institute as well as the Department Heads and Accounts office.

Institute has designed some specific rules for the fund usage and resource utilization. Mobilization of Funds, the student Tuition fee is the major source of income for the Institute. A finance committee has been constituted as per the UGC norms including the representation from the university to monitor the optimum utilization of funds for various recurring and non-recurring expenses. Institute has a well stated purchase procedure along with centralized Indent committee.

The Department purchase committee seeks quotations from vendors for the purchase of Lab equipments. The quotations are scrutinized by the indent committee before a final decision is made based on parameters like pricing, quality, terms of service, etc.

The finance and purchase committees along with the accounts department ensure that the expenditure lies within the allotted budget. The intervention of the management is sought in case the expenditure exceeds the budget.

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 visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. Two such processes are described below such as implementation of ERP system and Outcome based Education.

1.Improvement in quality of administrative processes by Installation customized ERP software

IQAC BIT, DURG has taken the lead to install ERP software to smoothen up the different administrative activities. Implementation of ERP system has enabled administrator and teachers to digitize regular work processes. It has increased the transparency of the system. Through the Parents login, Parents are able to monitor the progress of their wards. Examination system has also been automated through it. ERP software was customized according to the needs of the Institute and contains following Modules:-

- 1.Scholars - Student Admission, Data updation, Class and batch assignment, Report Generation
- 2.Academics - Time Table, Teacher Allotment, Attendance Entry, Assignment Marks entry, SMS

facilities

3. Fees & Accounts Module - Student fee ledger, fee collection, fee receipt generation and accounts related activities.
4. Faculty Portfolio - All faculty related data updation such as qualification, research papers, seminar/conference etc.
5. Utilities - Exam form approval and submission
6. Resultsoft- Marksheet generation and result publication
7. HR - Employee payroll, attendance
8. Library - Library Access Module

1.Improvement in quality of TLP by Implementation of Outcome Based Education Initiatives:-

IQAC BIT, DURG has contributed significantly by institutionalizing the quality assurance strategies and processes in Teaching – Learning Process by initiating OBE Awareness Programmes.

1. BIT, DURG has been given the Margdarshan project by AICTE. Under this scheme BIT, DURG act as a Mentor within an existing facility to serve as the hub to guide and disperse knowledge to ten technical institutions to encourage best practices. The secondary branches, the spokes, are additional services provided to faculty for self-improvement. Faculty Development Programmes, workshop sand seminars on Examination Reforms, Outcome Based Education and Accreditation were organised in the Institute by IQAC.
2. IQAC cell of the Institute coordinates with the Departments to formulate the SOP for evaluating the attainment of Course Outcomes, ensuring setting up quality question papers. The Departments discusses with the IQAC Cell in case of any query related to OBE such as defining learning levels, course outcomes or defining additional POs as in Post graduate program. Hence implementing the OBE system in the Department in its true spirit is taken care by IQAC cell of the Institute.
3. Under Margdarshan project by AICTE, IQAC organized Workshops and seminars on latest technologies and its applications for students of the spoke Instituions.

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

Two examples of institutional reviews and implementation of teaching learning reforms facilitated by the IQAC are Feedback system and Academic Audit.

1. Feedback System

IQAC of the Institute has been instrumental in framing and implementing Automated Feedback System in

the Institute. It has developed an inhouse software for online student feedback system. The software has been copyright though IPR, Govt of India.

All the teaching learning process of teachers and institute to conduct qualitative learning can be considered impactful only if the students interpret it to be meaningful. The feedback from students showcases the actual quality of teaching learning process enabling identification of the strengths of teaching as well as the possible improvements. The Automated Feedback System consists of various parameters related to subject teachers' teaching process such as Course coverage, Coverage of content beyond syllabus, communication skills, usage of teaching aids, concept Clarity, motivational/ inspirational approach, regularity/punctuality, Methodology and Doubt clearing. Students give the rating to each defined parameter in the range 1-5. Feedbacks are then compiled and reviewed and accordingly appropriate actions are taken to improve the quality of overall performance of the teaching – learning process.

2. Academic Audit:

IQAC being the central body within the college continuously monitors and reviews the teaching-learning process regularly. IQAC BIT, DURG formed Academic Audit Committee for this purpose and designed Audit/Appraisal forms. Academic Audit of each faculty member, non-teaching staff and department is taken every year through IQAC to increase and maintain the quality of education in 3 phases:-

1. Departmental Audit

At the beginning of academic session, the Academic Audit committee accumulates and reviews Audit forms of all departments of the institute. The Audit form includes details of department such as Programs Offered by the Department, Student-Faculty Ratio (SFR), Faculty Cadre Ratio, Faculty Qualification (FQ), Faculty Retention (FR), Faculty initiatives, Research projects, collaborations, innovative and best practices, laboratory maintenance and ambience, Students enrollment and success rate, academic performance, placement, higher studies and entrepreneurship, research publications of faculty members and students, students' competitions, development programmes, seminars and workshops.

2. Faculty Appraisal Audit

Academic Audit Committee collects and compiles appraisal forms of all faculty members. The appraisal form details about the Basic information, Workload, Feedback, Result, Students' Mentoring, Maintenance of course files, Lab Development initiative, Departmental Activities conduction, development programmes attended/organized, research work, publications, Invigilation duties, Paper valuation, AICTE initiatives undertaken and Copyrights/Patents.

3. Non-teaching Staff Audit

Academic Audit Committee collects and evaluates appraisal forms of Non-teaching staff of each department. The appraisal form designed for non-teaching staff members includes Basic information, Workload, Qualification/ Certification/ Training upgradation, New Initiative/ Experiment Setup, Inhouse Maintenance / Repairing, Proper maintenance of records, Competence of performing respective lab experiments.

The Academic Audit Committee evaluates the appraisal forms submitted by faculty members, staff members and departments in an academic session as per the academic plan and reviewed the respective

academic progress. The report of the committee was submitted to the IQAC for discussion, suggestion and approval.

Due to implementation of such academic audit, it was found out that all faulty members and departments have been constantly improving their curricular, co-curricular and extra co-curricular performances. The teaching-learning processes are reviewed, and improvements implemented, based on the IQAC recommendations.

6.5.3 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
- 2.Collaborative quality initiatives with other institution(s)**
- 3.Participation in NIRF**
- 4.Any other quality audit recognized by state, national or international agencies (ISO Certification)**

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	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:

Women's empowerment and gender equality are one of the primary concerns at BIT,DURG . We practice to bring a positive change in the attitude and support equity among genders within the institute and in our outreach. The measures initiated by the Institute for the promotion of gender equity includes formation of Women Security Cell, Girls Common Room and Internal Complaints committee.

Women Security Cell has been formed in the Institute and is working towards safety security of female employees and students. Internal Complaint committee has been formed to look into sexual harassment complaints.

Objective of Women Security Cell:

- To promote inclusiveness, tolerance, harmony and women's empowerment among the students and staff.
- To provide personnel counselling sessions as and when required.
- Promoting activities related to health, nutrition, self-defence and entrepreneurship among the female students.
- Conduct awareness activities related to cybercrime, safety and security in hostels and career enhancement for female students.
- Conduct workshops that promote diversity and gender-sensitive communication for students and staff alike.
- Mentorship in college to be provided where faculty and students can approach in matters of gender-related issues.
- Monitoring and evaluation mechanisms for implementation and their follow-ups.
- Student's code of conduct that promotes gender parity at the governance level.

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

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:

Degradable and non-degradable waste Management**LIQUID WASTE MANAGEMENT**

- Sewage Reuse Pump – 2HP is exclusively used to utilize the sewage water for irrigation/ watering of Institute's grounds, gardens, plants, etc.
- Design of sewage disposal is so efficient that the sewage water can be used directly used for garden watering and disposal.
- Use of Eco-friendly chemicals for cleaning and housekeeping is also ensured.
- Waste water management in campus including hostels, mess, canteen and toilets is designed such that the campus does not face water scarcity even during peak summer season.

SOLID WASTE MANAGEMENT

The State Urban Development Agency (SUDA) and Municipal Corporation of Durg are associated in our solid waste management program is to ensure proper disposal of all the waste generated within the campus by way of segregating the waste as organic waste, recyclable waste and inert waste and processing the waste. The objective is to minimize the waste generation and divert / avoid waste from being dumped at the dumping site.

Activities carried out on daily basis:

- Accumulated dry waste are cleared
- Shredding dry leaves & windrows formed.
- Compost Harvest
- Deliver bio compost for garden use
- Scrap yard maintenance

E-WASTE MANAGEMENT

BIT, Durg established in the year 1986 have continuously developed hardware and software labs because of which huge resources in the form e-waste was generated in the obsolesce due to upgradation in facilities. In a recent initiative a MoU is signed for systematic disposal of these e-waste.

COMPOST PIT

Students demonstrated step wise formation of compost pit to dump the biodegradable waste and then how to decompose the waste into useful manure. These compost pits have been of great help to the villagers as they put in biodegradable wastes such as vegetable peels etc. in these pits and can extract some manure out of the waste for use. This work was appreciated by the local government body as well.

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

7.1.6 Quality audits on environment and energy are 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

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.**
- 2. Divyangjan friendly washrooms**
- 3. Signage including tactile path, lights, display boards and signposts**
- 4. Assistive technology and facilities for 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: D.1 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

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:

Yes. Initiatives are taken by the Institute to provide an inclusive environment i.e tolerance and harmony towards cultural regional, linguistic, communal socioeconomic and other diversities. Institute conducts various activities to foster a sense of ethical, cultural, and spiritual values among students and staff

Faculty and staff of the Institute along with the students, especially the residents of the two hostels, celebrate the cultural and regional festivals together, like New-year's day and festivals like Holi Milan celebration, Vishwakarma puja, Saraswati puja, Ganesh Chaturthi, Hauman Jayanti, Navratri etc.

Observance of special day such as Teacher's Day holds a special place in the list of annual celebrations of the college. Cultural fest like OJAS provides students with the opportunity to exhibit the richness of their regional culture and also appreciate the cultures of others. Events of SPICMACAY helps the students to explore cultural vividness of our nation.

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

Institute sensitize the students and faculty member to the constitutional obligations through extra and co curricular activities. Every year, guest lectures are arranged for the first-year students as part of induction program to inculcate ethical values in the students. Sessions are also organized to spread awareness regarding the constitutional obligations such as values, rights duties and responsibilities of citizens.

Every year Vigilance Awareness week is observed in Bhilai Institute of Technology, Durg in collaboration with Industries such as NTPC and SAIL. This initiative ensures the inculcation of importance of various aspect of vigilance in the young mind, may it be for their own morality or other aspects of day-to-day life.

The Institution organizes Sadhbhavana and Unity Pledge taking ceremonies. A pledge is taken to promote comradeship, brotherhood & communal harmony among the students and hence to remind us all about golden words in Constitution "Unity in Diversity".

BIT Durg in collaboration with Durg Traffic Police also conduct various event on Road Safety with the motive of making people aware about the duties and responsibilities of a citizen when they are on road.

Every year, the college organize an oath taking ceremony on the National Voter's Day to revive the awareness in students of their responsibility and duties as citizen of India.

Institute celebrates the Independence Day and Republic Day with great vigour which again is a reminder of our great Constitution. It contributes to the spreading of Constitutional values and ideals.

File Description	Document
<ul style="list-style-type: none"> • Details of activities that inculcate values; necessary to render students in to responsible citizens 	View Document

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: A. All 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

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

Response:

To maintain harmony and healthy work atmosphere and to make the learners aware of the national pride and rich cultural heritage, the National/International commemorative days are regularly being celebrated and observed in the Institute.

- Every year the Institute celebrates National Festivals i.e. Independence Day on 15th August and Republic Day on 26th January with gaiety by hoisting the national tricolour in the Campus. Various Academic Awards are also distributed during this occasion.

- The birth anniversary of S. Radhakrishnan (5 September), is celebrated enthusiastically by the students as the Teachers' Day
- The College commemorates the birth anniversary of the genius mathematician Srinivasa Ramanujan on 22nd of December, which is also the National Mathematics Day.
- The National Engineers day, National Managers day, Vishwakarma Day and Energy Day are also celebrated to highlight the contribution of Engineers to the society.
- International Women's day is celebrated to spread awareness about gender equality and is a part of Institute gender sensitization plan.
- Today environment concerns are at its peak and India is committed to achieve its goals of reducing emission and pollution. World Environmental day is celebrated with large scale preparation and plant trees with maximum contribution coming from student bodies with the involvement of local people and NGO's.
- In today's world with its fast-paced life, stress is all pervasive. To learn dealing with stress and keeping our mind and body healthy we celebrate Yoga Day.

All these days are celebrated with the involvement of different bodies of clubs and other groups. The aim of the Institute is for the holistic development of the student by inculcating independent thinking, self-confident, environmentally friendly with good ethics, having good interpersonal and emotional skills thereby contributing to the growth of the society.

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:

Best Practices: I

Title of the Practice: Promoting Innovation & Creativity among the Students

Objective of the practice:

To systematically foster the culture of Innovation in the Institute. To encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes while they are in formative years.

The context:

To promote innovation in the Institution through multitudinous modes leading to an innovation, pre-incubation of ideas and startup promotion eco-system in the campus. To create a vibrant local innovation

ecosystem and developing better cognitive ability for technology students.

The Practice:

- To conduct various innovation and entrepreneurship-related activities.
- BIT, Durg has Institute Innovation cell (IIC), innovation club and startup club to create a culture of innovation among students and provide mentoring to nurture their entrepreneurship skills
- Identify and reward innovations and share success stories.
- Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Highlight innovative projects carried out by institution's faculty and students at the national level.
- Organize Hackathons, idea competition, mini-challenges etc. with the involvement of industries.
- In the academic year 2021 – 2022 more than 30 programs were conducted to promote innovation and creativity among the students.

Evidence of success:

- Institute IIC has received 3.5 star rating from Ministry of Innovation, GOI during 2020 - 2021 and 2021 - 2022.
- Institute has been ranked in the performer band in ARIIA ranking in 2021.
- Institute has received the AICTE Utkrishth Sansthan Vishvakarma Award 2020
- The student Akansha Shrivastava of the Institute received AICTE Chhatra Vishwakarma Award 2020 for developing Medirobot to fight COVID 19.
- Institute faculty Unmukta team (Dr Shubhrata Nagpal (Professor in Mechanical Engineering) , Dr Manisha Sharma (Professor in Electronics & Telecommunication Engineering) , Dr Arparna Rawal (Professor in Computer Science & Engineering received AICTE Lilavati Award 2020 - second runner up to promote women entrepreneurship.

Problems encountered:

The Innovation culture is still in its naive stage, it still needs nurturing and mentoring by Industry and Subject Experts. We are still in the process of Collaborating with various industries. Recognizing the

innovation that has the potential of disrupt the market at its initial stage is another big challenge for the academicians.

The Best Practices : II

Title of the Practice: Promoting Interdisciplinary environment through Skill Development facilitated by AICTE IDEA lab

Objective of the Practice:

- 1.To encourage students for application of science, technology, engineering and mathematics (STEM) fundamentals towards enhanced hands-on experience, learning by doing and even product visualization.
- 2.To develop skills like- critical thinking, problem solving, design thinking, collaboration, communication, lifelong learning etc. among the students.
- 3.To empower the students and faculty to “engage, explore, experience, express and excel”, addressing the need of new age learning.
- 4.To serve as an infrastructure for faculty to take up and promote multidisciplinary education and research.

The Context:

- 1.To provide facilities such as IDEA Lab for long term intervention aiming to transform education imparted in the institution.
- 2.To provide all facilities under one roof, for conversion of an idea into a prototype in interdisciplinary environment.
- 3.It is meant for students and faculty members (in-house/ external) of the school/college/ educational campus/ University who are registered as users.
- 4.Usage by industry, entrepreneurs, start-ups and alumni will be encouraged to use it and can be charged to recover cost of consumables and operations.
- 5.In order to transform ideas into prototype, IDEA lab is equipped with advanced tools/equipments and consumables for Computer Science, Information Technology, Electrical, Electronics & Telecommunication, Electrical & Electronics, Mechanical and Civil Engineering.
- 6.To align skill development activities with larger national goals/missions/initiatives or industrial or serving under privileged sections of society and commitment of resources for the same, will impart an edge for any proposal.

The Practice

BIT AICTE IDEA LAB conducted Skilling Programs / Trainings, Ideation Workshops, Boot-camps etc, and participated in similar activities organized by other IDEA Labs/Institutions and also in National/International events so as to ensure that IDEA Lab is used productively and also extensively.

Following activities conducted by BIT AICTE IDEA LAB in last two years:

- Two One Week Skilling Program for B.Tech 2nd Year Students on “**Smart Manufacturing Techniques in the Present Era**” in which 56 students were trained.
- Two One Week Skilling Program for B.Tech 2nd& 3rdYear Students on “**Smart Manufacturing & Automation Using Machine Learning Techniques**” in which 50 students were trained.
- One Month Summer Internship Program was conducted on “**Smart & Intelligent Manufacturing**” in which 114 students of B.Tech 2nd and 3rd Year were trained.
- One week School Teacher’s Awareness Program on “**Transforming Young Teachers into Modern Age Gurus**” was conducted for thirty eight Teachers of different schools of Chhattisgarh.
- Three Open Day for School Students were organized for various school students of Chhattisgarh region. Till now approximately 300 students visited and were exposed to various facilities available in our IDEA LAB.
- Skilling Program for In house Lab Staff Members on “**New Generation Intelligent Manufacturing Techniques**” was organized in which 21 staff members were benefitted and utilized the advanced facilities of IDEA LAB.
- Two One Month Certification Programme on “**Electric Vehicle Technology**” for In-house/External B.Tech 2nd and 3rd year students were jointly organized by the BIT AICTE IDEA LAB and Dept. of Electrical & Electronics Engineering, BIT, Durg in which 57 students participated.
- One Week Faculty Development Programme on “**Next Generation Smart Manufacturing Techniques**” was conducted in which 31 faculty members from various Engineering and Polytechnic institutes were trained.
- **Smart India Hackathon 2022**, nationwide initiative by the Ministry of Education’s Innovation Cell, AICTE was held at BIT-Durg. A total of 23 teams having 146 participants. “**Smart India Hackathon 2022 (Hardware Edition)**” in Central India organised during 25 – 29 August 2022.
- Eight Ideation Workshops on “**Igniting Young Minds Towards Smart Manufacturing Trends and Technologies**” for B.Tech 2nd year Engineering and MCA students were conducted for in-house students to generate ideas and solutions through brainstorming sessions.
- Two Bootcamps for In- house faculty members of various departments were organised on “**IOT Applications in Smart Manufacturing Technologies**”.

- 8 Professional Skilling Programme of 12 days each on "Smart Manufacturing Technologies & IOT Application with Arduino Uno" were conducted for various NCVT approved ITI Institutions of Chhattisgarh region in which 95 students were trained in various advanced technologies and equipment.
- **Evidence of Success:**
- IDEA lab greatly enhanced the visibility of the institution among stakeholders and significantly improved the employability of students by imparting 21st century skills. IDEA Lab Activities provided a platform for knowledge sharing, collaborative learning and enhanced the participants performance.
- Faculty members were able to apply project based teaching/learning in conventional teaching methodologies by using different advanced technologies in areas like electrical and electronics fabrication, embedded systems design. Embedded programming, 3D printing, robotics, welding, IOT, Machine learning, AI, bio-engineering, biomedical, Welding, 3D printing, mechanical fabrication etc.
- Engineering / Diploma graduates were able to analyse and solve the real life problems through prototype development. A total of 53 projects were developed during the various events.
- ITI Students were able to Identify and analyse societal problems by developing solutions using Smart Manufacturing tools and techniques.
- School Students were exposed to advanced facilities in IDEA LAB which provided practical learning experience in the field of smart and intelligent manufacturing.
- On the basis of performance of BIT AICTE IDEA LAB, **Smart India Hackathon 2022**, a nationwide initiative by the Ministry of Education's Innovation Cell, AICTE was organized at BIT-Durg.
- The students showcased the prototypes and software based projects in various National Level Events / Tech Fest organized by renowned Institutions and also bagged prestigious awards.
- 3 Design Patents were registered and 2 were granted by Patent Office of India.

Problems Encountered:

Some of the challenges faced during implementation and functioning of BIT AICTE IDEA LAB are:

- To keep it well-furnished, take care of security, provide a safe working environment and stock adequate supplies of consumables.
- To provide necessary staff and all support facilities and amenities required to operate and maintain the Lab.
- To adhere to the guidelines issued by AICTE in the matter of IDEA Lab and other Government of

India rules besides following the enunciated Code of Conduct in letter and spirit.

- To conduct various IDEA LAB activities smoothly in off-Line mode during Covid-19 Pandemic period.
- The Lab which should ideally remain open 24x7, has to be equipped with facilities, tools and consumables to support translation of an idea to prototype development.

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:

Institute has envisioned to promote quality education, research and innovation among its stakeholders. The Institute is the first choice among the students in the Chhattisgarh State. It has almost 100 % enrollment. The student to teacher ratio is about 1 : 17 with the average teaching experience of about 14 years and an average age of about 38 years. The Institute is NAAC accredited by A grade in cycle 1. It is also ISO 9001: 2015 & ISO 14001: 2015 Certified. Its all Under graduate programs are accredited by NBA. BIT, Durg has been the mentor institute by AICTE under Margdarshan scheme for ten technical institutions of Chhattisgarh to share its best practices. In particular Institute has helped the spoke Institutions to pursue for accreditation process and promote quality education. Institute has been NIRF 2020 ranked under Engineering category in the rank band of 251- 300.

Institute has promoted the culture of innovation and research. The ten departments are approved as research centres by the State Technical University. Presently about 160 Ph.D research scholars are registered in the institute. It has collaborated with international universities such as NCUT TAIWAN, Silisian University Opava under Erasmus+ for faculty and student exchange program.

Institute has established AICTE IDEA lab, Texas Instruments innovation lab, Centre of Excellence in machine learning to promote innovation. Institute has established Entrepreneurship Development Cell sponsored by AICTE. Institute has received the AICTE Utkrishth Sansthan Vishvakarma Award 2020. BIT, Durg has Institute Innovation cell (IIC), innovation club and startup club to create a culture of innovation among students and provide mentoring to nurture their entrepreneurship skills. Institute IIC has received 3.5 star rating from Ministry of Innovation, GOI in 2021 and 2022. Institute has been ranked in the performer band in ARIIA ranking in 2021. Institute has organized Smart India Hackathon 2022 (Hardware Edition) – Azadi ka Amrit Mahotsav.

Dr. M. K. Gupta. Principal and Professor in Civil Engineering has been nominated as Technical Member of CED 7 Committee (Structural Engineering & Structural Sections), Bureau of Indian Standards, New Delhi. Dr. M. Padmavati, Vikas Pandey and Dr. Pawan Patnaik of Computer Science and Information Technology Department visited University in Czech Republic in Faculty Exchange Program Erasmus+ 2018.

Dr Manisha Sharma Vice Principal and Professor in Electronics & Telecommunication Engineering received the AICTE Best Teacher Award 2020. She was one of the 12 recipients at the national level to receive the award by Ministry of Education. She is also amongst the 10 member team selected by AICTE to represent India under AICTE-UK (UKIERI) at London, 2018 and hereby selected as a master trainer by AICTE in academic leadership and management. Dr. Ruby Das, Professor in Department of Physics visited University of Cambridge, UK in Leadership Academicians Programme (LEAP) 2019. Dr S. K. Sar HoD(Department of Applied Chemistry) and Dean (student welfare) visited an University in Thailand (2016) & in Turkey(2022) for Research collaboration.

Institute also has a women faculty Unmukta team (Dr Shubhrata Nagpal (Professor in Mechanical Engineering) , Dr Manisha Sharma (Professor in Electronics & Telecommunication Engineering) , Dr Arparna Rawal (Professor in Computer Science & Engineering) to promote women entrepreneurship . Unmukta Team of the Institute received AICTE Lilavati Award 2020 - second runner up to promote women entrepreneurship. Akansha Shrivastava - a student of the Institute received AICTE Chhatra Vishwakarma Award 2020 for developing an innovative product – MEDI ROBOT to fight COVID 19 and assisting in telemedicine.

File Description	Document
Appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

2017 - 2018

1. Institute received NAAC accreditation with A grade , cycle 1
2. Five B.Tech undergraduate programs were NBA accredited
3. Institute received NIRF2017 ranking in the rank band of 151 - 200 under Engineering category
4. Institute was ISO 9001: 2015 Certified
5. Texas Instruments Innovation Lab established

2018 - 2019

1. Two more UG Programs were NBA accredited . Hence by then All UG programs were NBA accredited.
2. Institute received NIRF 2018 ranking in the rank band of 151 - 200 under Engineering category
3. Institute was ISO 9001: 2015 Certified
4. Institute received AICTE Margdarshan Scheme to mentor ten Technical Institutions of Chhattisgarh
5. International student and faculty Exchange program with Silisian University (European University) OPAVA
6. International student and faculty Exchange program with NCUT Taiwan

2019 - 2020

1. Five UG programs presented their NBA compliance report.
2. Institute applied for Autonomy to UGC.
3. . Ruby Das, Professor in Department of Physics visited University of Cambridge, UK in Leadership Academicians Programme (LEAP)

2020 - 2021

1. Institute was conferred with Autonomous status by UGC.
2. Institute was ISO 9001: 2015 & ISO 14001: 2015 Certified for quality and environment management system.

3. Institute received the AICTE Utkrishth Sansthan Vishvakarma Award 2020
4. Institute IIC has received 3.5 star rating from Ministry of Innovation, GOI
5. Institute has been ranked in the performer band in ARIIA ranking
6. Institute faculty received AICTE Best Teacher Award 2020
7. Unmukta Team of the Institute received AICTE Lilavati Award 2020
8. The student Akansha Shrivastava of the Institute received AICTE Chhatra Vishwakarma Award 2020

2021 - 2022

1. Institute initiated two new UG programs - B.Tech (Computer Science & Engineering - AI) and B.Tech (Computer Science & Engineering - Data Science)
2. Institute has setup an AICTE IDEA Lab.
3. Institute IIC has received 3.5 star rating from Ministry of Innovation, GOI
4. Institute applied for NBA accreditation of PG program (MBA) . The visit has been done and the Institute is awaiting for the result.

Concluding Remarks :

Bhilai Institute of Technology, Durg with an existence of more than 36 years, has carried a legacy of imparting excellent education to thousands of students. Over the years it has grown from strength to strength with the expansion both in academic field and infrastructure. The vision and mission of the BIT Trust and Governing Body are the guiding lights for the stake holders of the college.

Good governance has been the crux for the excellent growth shown by the college in the field of education. Management is leading the path to enhance teaching and learning process and knowledge dissemination by magnanimously giving due financial support to all the departments to upgrade the labs and R&D facilities. Although the college started with an intake of 180 students in for B.Tech programs, presently it is catering not only to UG and PG students but also to researchers with an intake of about 1000 students every year. Presently all the UG programs are accredited by NBA . This reflects the quality of education being imparted to the students. Ten departments are recognized research centers under CSVTU. With enhanced research and consultancy facilities, fund mobilization through research grants and consultancy have crossed few crores of rupees.

The autonomous status has amplified the quality of education that is being imparted with proper design of curriculum with due participation from the industry people. No effort is spared to reduce the gap between the institution and Industry. Students are being sent for internship in industries, which later become spring boards for the students to reach higher levels in training and knowledge and make them employable. Placements for the students have been very good and several of our alumni have occupied key positions both in India and abroad. Institute achievements have been recognized by Ministry of Education through various awards as well as ranking in NIRF.

The Institution believes that NAAC certification will be a measure to evaluate and guarantee the standard of education provided at BIT Durg. It is hoped that the NAAC accreditation further elevates the institutional image.