

ANNUAL QUALITY ASSURANCE REPORT 2017-18



BITS Pilani

Pilani | Dubai | Goa | Hyderabad



SUBMITTED TO **NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)**
BANGALORE – 560072



Revised Guidelines of IQAC and submission of AQAR

Table of Contents

Topic	Page No.
The Annual Quality Assurance Report (AQAR) – Part A	1
The Annual Quality Assurance Report (AQAR) – Part B	7
Annexure 1.1: Details About Academic Programmes	40
Annexure 1.3: Feedback from Stakeholders	41
Annexure 2.11: Course / Programme wise distribution of pass percentage	45
Annexure 2.13: Initiatives undertaken towards faculty development	49
Annexure 2.14: Activities and Contribution	55
Annexure 2.15: Academic Calendar	57
Annexure 3.4: Details on Research Publication	60
Annexure 3.6: Research Funds and Sanctions Received from various funding Agencies ,industry and other organizations	231
Annexure 3.11: Innovative Process adopted by Institution in teaching and learning	462
Annexure 3.16: Number of Patents Received this Year	470
Annexure 3.18: Number of faculty from the Institution who are Ph.D Guides and Students Registered under them	472
Annexure 3.19: Number of Ph.D. awarded by faculty from the Institution	491
Annexure 5.3: Total Number of Students	494
Annexure 5.7: Details of campus placement	495
Annexure 5.8: Details of gender sensitization programme	546
Annexure 5.9.1: Number of students participated in sports, games and other events	547
Annexure 5.10: Scholarship and Financial support	548
Annexure 6.3.5: Library,ICT and physical infrastructure/instrumentaion	550
Annexure 6.3.6: Human Resource Management	553
Annexure 6.11: Activity and Support from alumni association	558
Annexure 7.1: Innovation introduced during this academic year which have created positive impact on the functioning of Institution	561
Annexure 7.3: Two best practices of the Institution	565
Annexure 8: Plans of Institution for the next year	566

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. *(Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)*

Part – A

1. Details of the Institution

1.1 Name of the Institution	BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
1.2 Address Line 1	VIDYA VIHAR
Address Line 2	JHUNJHUNU DIST.
City/Town	PILANI
State	RAJASTHAN
Pin Code	333031
Institution e-mail address	registrar@pilani.bits-pilani.ac.in
Contact Nos.	+91-1596-515298
Name of the Head of the Institution:	PROF. SOUVIK BHATTACHARYYA (Vice-Chancellor-BITS,Pilani)
Tel. No. with STD Code:	+91-1596-515247
Mobile:	9836833100

Name of the IQAC Co-ordinator: Prof. Mani Sankar Dasgupta

Mobile: 9829227459

IQAC e-mail address: dasgupta@pilani.bits-pilani.ac.in

1.3 NAAC Track ID (For ex. MHCOCN 18879) RJUNGN10005

1.4 NAAC Executive Committee No. & Date: EC(SC)/20/A&A/2.3
(For Example EC/32/A&A/143 dated 3-5-2004.
This EC no. is available in the right corner- bottom
of your institution's Accreditation Certificate)

1.5 Website address: <http://www.bits-pilani.ac.in>

Web-link of the AQAR: <http://www.bits-pilani.ac.in/AwardsandAccreditations>

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	A*****	-	07/02/2000	5years
2	2 nd Cycle	A	3.71	29/01/2009	5years
3	3 rd Cycle	A	3.45	16/12/2016	5years

1.7 Date of Establishment of IQAC : DD/MM/YYYY 25/05/2004

1.8 AQAR for the year (for example 2010-11) 2017-18

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011)

i. AQAR _____ 11-01-2018 _____ (DD/MM/YYYY)

1.10 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women
Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid + Self Financing Totally Self-financing

1.11 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

PHARMACY

1.12 Name of the Affiliating University (for the Colleges)

NA

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

DEEMED UNIVERSITY

University with Potential for Excellence

-

UGC-CPE

-

DST Star Scheme

-

UGC-CE

-

UGC-Special Assistance Programme

-

DST-FIST

19

UGC-Innovative PG programmes

-

Any other (*Specify*)

UGC-COP Programmes

-

2. IQAC Composition and Activities

2.1 No. of Teachers

10

2.2 No. of Administrative/Technical staff

-

2.3 No. of students

1

2.4 No. of Management representatives

1

2.5 No. of Alumni

1

2.6 No. of any other stakeholder and community representatives

1

2.7 No. of Employers/ Industrialists

2

2.8 No. of other External Experts

1

2.9 Total No. of members

17

2.10 No. of IQAC meetings held

5

2.11 No. of meetings with various stakeholders:

No. 5

Faculty

2

Non-Teaching Staff

2

Alumni

Others

1

2.12 Has IQAC received any funding from UGC during the year? Yes— No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos. International National State Institution Level

(ii) Themes

2.14 Significant Activities and contributions made

IQAC served as a platform to bring various stakeholders together in the institute by addressing various suggestions for improvements, laying emphasis on quality aspects and promoting participative discussions. Emphasised on enhancing research activities through quality publications (in SCOPUS listed journals), organizing workshops/conferences/schools/ in periodic manner and through participation in student exchange and faculty sabbatical as well as University and Industry immersion program of the institute

IQAC members have made various suggestions, recommendations on the following matters.

- Academic improvement and curricular development and course structure
- Enhancing research activities, modes of enhancing external funding for research
- Industry collaborations and faculty immersion programs
- Promotion of result oriented learning structure.
- Enhancing the quality of student placement.
- Through activities of Teaching Learning Center
- Through activities of Intensive Teaching Workshop

Please Ref. Annexure 2.14 for details

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

Plan of Action	Achievements
<p>1. IQAC had recommended representation of Ph.D. students and Higher Degree students in the highest body in the Deemed university, that is the Senate. The undergraduate students already have appropriate representation in the Senate.</p> <p>2. In view of grievances received from Ph.D. students, IQAC recommended formation of guidelines for allotment of teaching responsibilities for the Ph.D. scholars</p> <p>3. IQAC drew attention regarding recommended Degree nomenclatures as per Gazette notification by UGC on July 5th 2014</p>	<p>This was approved vide agenda item no 181.10 of the 181st senate held on 10th July 2017.</p> <p>One full time Ph.D. scholar in his/her 3rd or 4th year, and one full time Higher degree student in his/her 2nd year from each campus of BITS Pilani will be nominated to attend senate meetings as invitees.</p> <p>Guidelines Approved in 181st Meeting of senate held on 11th July 2017. Further, incorporating feedback from various stakeholders, a Revised set of Guidelines were Approved in 182nd Meeting of senate, held on 28th November 2017.</p> <p>The matter has been discussed in 182nd Meeting of senate, held on 28th November 2017 and a committee has been appointed by the Chairman of Senate to study the same in-depth, which will subsequently report back to senate.</p>

* Attached the Academic Calendar of the year as Annexure 2.15

2.16 Whether the AQAR was placed in statutory body Yes No

Management Syndicate Any other body

Provide the details of the action taken

Every functional Department heads/In-charges are sensitised about the importance of data collection and verification for AQAR.

The Management understands the importance of AQAR, a must-to-do exercise for maintaining the quality of all related exercise in Academic sphere at the highest level and thus helping the University to move on the right track. The University would prepare AQAR every year and would be submitting to NAAC.

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes (*for details please refer Annexure 1.1*)

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	All disciplines	-	-	-
PG	18	-	-	-
UG	10	-	-	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	-	-
Others	6	-	-	-
Total	34	-	-	34
Interdisciplinary	-	-	-	-
Innovative	-	-	-	-

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	First Degree – 14 Higher Degree – 18 PhD

1.3 Feedback from stakeholders* Alumni Parents Employers Students
(*On all aspects*)

Mode of feedback : Online Manual Co-operating schools (for PEI)

*(for details please refer Annexure 1.3)

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

BITS Pilani is a deemed University and changes in curriculum are regulated by its own apex body, the Senate.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Center of Human Diseases Research was created at Hyderabad campus. The objective of this center is to perform cutting-edge interdisciplinary research on important human diseases to enhance the basic understanding of the diseases and to find interventional solutions.

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
559	39			

2.2 No. of permanent faculty with Ph.D.

537

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
39	-	3	-	1	-	19	-	62	-

2.4 No. of Guest and Visiting faculty and Temporary faculty

107

15

-

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	25	35	2
Presented papers	66	27	2
Resource Persons	05	15	2

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- Teaching Learning Center (TLC) activities
- Intensive Teaching Workshop (ITW) for all newly joined faculty members
- Continuous Feedback System
- Continuous Evaluation
- Return of evaluated copies to students for all examinations
- Display of Model Solution of every test paper along with marking scheme
- Recording and distribution of classroom lectures
- A few courses are offered on Moodle platform in flip class room mode
- Video content developed for Laboratory experiments and for a few courses.

Refer **Annexure 3.11** for details regarding activities under TLC & ITW

2.7 Total No. of actual teaching days during this academic year

Pilani	Hyderabad	Goa	Dubai
184	172	173	200

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

- Institute has mandatory 20 % minimum evaluation component in open book format.
- Evaluated answer scripts of all the examinations are returned back to the students
- Students can apply for recheck without any additional fee. Complete transparency and uniformity is ensured
- There is a provision of grade scrutiny also after the final grade has been awarded
- Institute has efficient in house reprographic facilities for production of question papers ensuring complete confidentiality.
- Model answer of each evaluation component made available to the students.
- Institute has introduced double valuation, online multiple choice questions, bar coding to enhance the efficiency of the system.
- There is a provision to conduct online multiple choice question based examinations using Moodle and other platform and most courses make use of this facility

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop.

All faculty members are empowered to participate in curricular development exercise. 250 faculties as member of Senate are involved in the highest level of decision making regarding curriculum and structure revision.

2.10 Average percentage of attendance of students

UG	PG	PhD
60% To 70%	80% To 90%	90% To 100%

At the three Indian campuses of BITS Pilani, there is no mandatory minimum number of attendance requirements however attendance is maintained for the purpose of record. There is requirement of 75% minimum attendance at BITS Pilani Dubai campus in first year and 60% in subsequent years.

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
*	3039	12.96	64.66	22.23		

* Please refer to **Annexure 2.11** for details

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

IQAC plays a critical role by providing various suggestions to the statutory authorities of the universities for implementation. Few contributions made by the IQAC to improve the quality of education include curriculum review and expert committee visits to assess all discipline programmes across departments, establishment of the teaching learning centre, strengthening of faculty and course feedback systems, increase in assignment based and open book components in curriculum and fine grained grading of students, etc.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty/staff benefitted</i>
Refresher courses	-
UGC – Faculty Improvement Programme	Annexure 2.13
HRD programmes	-
Orientation programmes	BITS Pilani (Pilani, Goa and Dubai) - 6 (induction program)
Faculty exchange programme	-
Staff training conducted by the university	22 Training Programs attended by 311 participants
Staff training conducted by other institutions	-
Summer / Winter schools, Workshops, etc.	12 Workshops
Others	

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff and Technical Staff	1085	-	74	-

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

* Please refer to *Annexure 3.6* for details

To transform BITS into a research led university and to enhance research outputs of the university, several measures have been placed by IQAC before the Statutory Authorities to be implemented: include recruitment of research focused faculty, introduction of research initiation grant , competitive research initiation grants, seed grants, OPERA awards for new faculty and Chair Professorships to senior faculty, increase of Professional allowance for faculty to the tune of 1 lakh/annum, introduction of Part Time Ph.D programme, revamping of Ph.D course structure , introduction of provision of co-supervisor, giving letter grades to thesis/Dissertation to encourage undergraduate/graduate research activities, etc.

3.2 Details regarding major projects (2017)

	Completed	Ongoing	Sanctioned	Submitted
Number	51	120	74	269
Outlay in Rs. Lakhs	1328.11	4558.75	2971.40	14067.04

3.3 Details regarding minor projects (2017)

	Completed	Ongoing	Sanctioned	Submitted
Number	06	14	13	56
Outlay in Rs. Lakhs	17.17	77.75	68.37	304.04

3.4 Details on research publications

	International	National	Others
Peer Review Journals	701	76	Nil
Non-Peer Review Journals	Nil	Nil	Nil
e-Journals	Above publications are also available electronically		
Conference proceedings	379	409	Book chapter-19 Erratum-03 Editorial-03 Letter-01

Refer to *Annexure 3.4*

3.5 Details on Impact factor of publications(for 2016 only)

Range Average h-index Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

* Please refer to **Annexure 3.6** for details

Nature of the Project(Pilani campus)	Duration Year	Name of the funding Agency	Total grant Sanctioned	Received
Major projects	1-3	Various	996.74 lacs	502.89 lacs
Minor Projects	1-3	Various	3.0 lacs	3.31 lacs
Interdisciplinary Projects	1-3	Various	0 lacs	13.5 lacs
Industry sponsored	1-2	Various	47.41 lacs	48.53 lacs
Projects sponsored by the University/ College	1-2	Various	88.4 lacs	88.4 lacs
Students research projects <i>(other than compulsory by the University)</i>	-	-	-	-
Any other(Specify)	-	-	-	-
Total				

Nature of the Project(Goa campus)	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	1-3	Various	810.41	467.22
Minor Projects	1-3	Various	0.45	0.419
Interdisciplinary Projects	1-3	Various		
Industry sponsored	1-2	Various	66.32(03 Nos.)	24.49
Projects sponsored by the University/ College	1-2	Various		Addl Comp 40.00(5 Project) and RIG 22.00 (11 Projects) and FIST 50% 225
Students research projects <i>(other than compulsory by the University)</i>	-			
Any other(Specify)	-	Various	296.64	150.00(BIRAC BIO- NEST)

Nature of the Project(Hyderabad campus)	Duration Year	Name of the funding Agency	Total grant Sanctioned	Received
Major projects	1-3	Various	846.08 lacs	358.86 lacs
Minor Projects	1-3	Various	65.08 lacs	19.58 lacs
Interdisciplinary Projects	1-3	Various	630.44 lacs	207.47 lacs
Industry sponsored	1-2	Various		
Projects sponsored by the University/ College	1-2	Various		
Students research projects <i>(other than compulsory by the University)</i>		-	-	-
Any other(Specify)		-	-	-
Total				

3.7 No. of books published i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST
DPE DBT Scheme/funds

3.9 For colleges Autonomy CPE DBT Star Scheme
INSPIRE CE Any Other (specify)

3.10 Revenue generated through consultancy

3.11 No. of conferences organized by the Institution

3.12 No. of faculty served as experts, chairpersons or resource persons

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs :

From Funding agency From Management of University/College
Total

3.16 No. of patents received this year (**Pilani,Goa,Hyderabad,Goa**)

* Please refer to **Annexure 3.16** for details

Type of Patent		Number
National	Applied	14
	Granted	5
International	Applied	0
	Granted	0
Commercialised	Applied	0
	Granted	0

3.17 No. of research awards/ recognitions received by faculty and research fellows

Of the institute in the year

Total	International	National	State	University	Dist	College
57	20	37	-	-	-	-

3.18 No. of faculty from the Institution who are Ph. D. Guides and students registered under them

850

* Please refer to **Annexure 3.18** for details

3.19 No. of Ph.D. awarded by faculty from the Institution

112

* Please refer to **Annexure 3.19** for details

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF 92 SRF 44 Project Fellows 90 Any other 612

3.21 No. of students Participated in NSS events: University level 890 State level -

National level 15 International level -

3.22 No. of students participated in NCC events: University level - State level -

National level - International level -

3.23 No. of Awards won in NSS: University level 2 State level -

National level 3 International level -

3.24 No. of Awards won in NCC: University level - State level -

National level - International level -

3.25 No. of Extension activities organized

University forum - College forum 3
 NCC - NSS 41 Any other 1

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

BITS Pilani has a vibrant eco-system for its ISR and extension activities. Students in campus, Staff and faculty members, with support of Alumni and University management drives the effort.

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	709	-	-	709
Class rooms	173	-	-	173
Laboratories	152	-	-	152
Seminar Halls	22	-	-	22
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	-	-	Capex & Govt. Grant	235
Value of the equipment purchased during the year (Rs. in Lakhs)	-	-	Capex	3594
Others (ICT)	-	-	-	187

4.2 Computerization of administration and library

- Additional Wifi Access Points expansion in hostel blocks-75 Nos
- Physics lab networking-data point installation and configuration
- E-document device (Wacom) for remote teaching-2 Nos
- E-campus solution phase 1 implementation with 28 Printers and Self Kiosk for payment

Internet line upgrade from 200 Mbps to 550 Mbps to students' network

Three hostels upgraded WiFi infrastructure from outdoor access points (AP) to Indoor Aps for better QoS.

ILL increased from 600 Mbps to 5Gbps for all campus put together.

Upgraded Cyberoam by including Outbound Sparm and WAF modules.

Upgraded software Matlab (R2018), Mathematica, ANSYS (15), Microsoft Windows (10), Linux (Ubuntu 18), Pro-e, Origin Pro (9.4).

Upgraded Network infrastructure by adding 100 more new access points and 100 more indoor APs.

Replaced older switches with WS 3650 PSL PoE switches.

Added 56 seats in Computer Lab.

Installed Multi-media facility (Amplifiers, Mixers, Speakers and Mics) in 38 class rooms

Purchased and implemented SSL certification for the domain.

Upgradation of Single sign on mechanism for all users.

Upgraded Cyberoam by including Outbound Sparm and WAF modules.

Upgraded software Matlab (R2018), Mathematica, ANSYS (15), Microsoft Windows (10), Linux (Ubuntu 18), Pro-e, Origin Pro (9.4).

Upgraded Network infrastructure by adding 100 more new access points and 100 more indoor APs.

Replaced older switches with WS 3650 PSL PoE switches.

Upgraded Anti-virus (Seqrte Endpoint Security 17.0)

Data center Infrastructure upgraded and 2 more server class machines added.

All multi-mode fibres across the campus changed to Single mode fibres.

4.3 Library Details

Pilani Campus	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	12227	--	107	73250	12334	--
Reference Books	208273*	--	939	2017652	209212	--
e-Books	1000262**	939460	982	1121876	1001244	2061336
Journals	206	1059976	--	--	206	1059976
e-Journals	38799	17436224	--	--	38799	17436224
Digital Database	29	16375191	5	21664000	34	38039000
CD & Video	2396		--	--	2396	--
Others (specify)						
• Ph.D Thesis	1244	--	144		1388	--
• Journals Back Volumes	24615	--	284		24899	--

Goa Campus	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	6075	7,581,209.37	68	153,813.09	6143	7,735,022.46
Reference Books	30646	49509404.94	324	676002.60	30970	50185407.54
e-Books	0	0	0	0	0	0
Journals	83	611,249.53	7	1,424,608.25	90	2,035,857.78
e-Journals	15	2,798,527.90	0	0	15	2,798,527.90
Digital Database	7	17,827,040.00	10	9,137,896.96	17	26,964,936.96
CD & Video	1678	0	0	0	1678	0
Others (specify)	0	0	0	0	0	0

Hyderabad Campus	Existing till 31.03.18		Newly added (from 01.04.18 to till date)		Total	
	No.	Value (Rs.)	No.	Value (Rs.)	No.	Value (Rs.)
Books	29700	16,855,218	110	49,500	29810	16,904,718
Text / Reference Books	8650	5,418,406	15	14,250	8665	5,432,656
e-Books	885	1,099,376	0	0	885	1,099,376
Journals	80	3,976,032	3	9,519	83	3,985,551
e-Journals	7200	47,007,589	0	0	7200	47,007,589
Digital Database	10	7,974,672	1	32,000	11	8,006,672
CD & Video	670	451,374	0	0	670	451,374
HBR Case Studies	50	29,050	0	0	50	29,050

Dubai Campus	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	974	130772.06	297	53627.22	1271	184399.28
Reference Books	19515	3086887.32	914	163598.52	20429	3250485.84
e-Books	4000				4000	
Journals	49	53295			49	53295
e-Journals	6386	282314			6386	282314
Digital Database	5				5	
CD & Video	1500		43		1543	
Others (specify)						
• Magazines	58	20120			58	20120
• Newspapers	6	2446			6	2446
• e-Newspapers	2	481			2	481
• Back Volumes	571		141		712	
• Theses	465				465	
• Book Bank	480		184		664	

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	816	300	Yes		234	82	200	
Added	167	85	-		061	05	016	
Total	983	385			295	87	216	

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

Whenever there is technology upgradation, training to teachers and Students is always provided.

4.6 Amount spent on maintenance in lakhs :

i) ICT	70.41 lacs
ii) Campus Infrastructure and facilities	Pilani 430 lacs, Goa 850 lacs, Hyderabad 277 lacs
iii) Equipments	15.23 lacs
iv) Others	-
Total :	1642.64 lacs

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

1. IQAC recommends continuous evaluation with components like quiz, assignment, Mid-semester and comprehensive examination spread out over the entire semester engaging students better with courses which help students to perform better.
2. IQAC recommends course handout along with learning objective for every course is made available to students at the beginning of the semester, which also contains definite set of objectives, lecture plan, tutorial and the evaluation components detail.
3. As per recommendation of IQAC, smaller tutorial sections for the courses with large number of students are arranged. This ensure better faculty-student, student-student interaction (through flipped mode tutorial class), guidance (extra hour of discussion beyond the lecture and tutorial hours) and monitoring.
4. Sharing lecture notes, lecture videos, conducting quiz in Moodle ensures better connectivity with students and is encouraged.
5. Recorded lecture sessions / teaching aids are made available to students in appropriate IT platform.
6. Specialized and popular courses are made available to the students of all BITS campuses using the Tele-Presence Classroom facility of the University. This ensures accessibility of courses and instructor(s) by any student irrespective of his/her physical location.
7. Under quality initiative, online courses through the MOOCs using MIT edx is initiated, which are also accessible to outside BITS population
8. All laboratories, library, hostels, class rooms cafeteria, and administrative blocks are made Wi-Fi enabling acquisition and dissemination of knowledge easier.
9. Introduction of project component in the disciplinary and elective courses give ample opportunity to students to learn things beyond the syllabus and thus engage the student with course more effectively

5.2 Efforts made by the institution for tracking the progression

1. For each and every course there is a handout. The students are provided with the handout of the course(s) made by the respective Instructor-in-charge(s) in which the objectives, learning outcomes, lecture and tutorial time schedule, extra meeting hour outside the scheduled class hours, dates and time of test(open/close book) and comprehensive examination(open/close book), quiz/assignment/project report/seminar components are announced.
2. Measures like ICT enabled classrooms, smaller tutorials for better interaction, knowledge sharing and guidance, to carry forward the classroom discussion well beyond the class hours, more discipline oriented project courses, study project, design project, computer project and last but not the least the independent learning platforms like Sandbox etc. helps in creating a student centric learning environment.
3. The institute provides access to open source, nationally and internationally available online teaching and learning resources such as NPTEL lectures, OCW etc. The institute library has a portal which supports 32 online databases including Online Public Access Catalogue (OPAC) which provides access to over 235000 print e-books. These databases put together provide access to over 11000 full text journals.
4. Campus-wide network with data ports, wired and Wi-Fi connectivity is maintained so as to ensure internet facility at all hostel rooms, cafeteria, library, staff quarters, all laboratories and administrative blocks within the campus.
5. Students whose CGPA are found to be 4.5 or below, comes under the category called ACB (Academic Counselling Board) automatically. An ACB student is closely mentored/closely monitored by a ACB faculty appointed by the Instruction Division.

5.3 (a) Total Number of students

Campus	UG	PG	Ph. D.	Total
Hyderabad	3294	223	282	3799
Pilani	3991	577	323	4891
Goa	2824	126	224	3174
Total	10109	926	829	11864

(b) No. of students outside state

Campus	UG	PG	Total
Pilani	3169	480	3649
Goa	2633	75	2708
Hyderabad	2192	127	2319
Total	7994	682	8676

(c) No. of international students

Pilani	Goa	Hyderabad	Total
0	18	53	71

No	%
19881	83.53

Men

No	%
3923	16.57

Women

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
*						*					

* Admission is based purely on merit and this information are not captured.

Demand ratio

UG-59.9, PG-9.01

Dropout %

0.005%

* Please refer to **Annexure 5.3** for details

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Institute has come up with a strategy of providing external support to prepare students for various national and international level examinations like GATE,CAT,GMAT,GRE,etc. Students are free to attend classes for preparation of these competitive exams after regular university classes. Institute has also went one step ahead to also provide career guidance on how to prepare and what to expect while giving such exams. On a regular basis institute organizes sessions and seminars by administrative heads, business leaders, scientists, distinguished alumni etc., to motivate the students and offer career guidance in competitive examinations

No. of students beneficiaries

Many students are getting good results in these competitive exams

5.5 No. of students qualified in these examinations (*We do not collect this data)

NET	<input type="text"/>	SET/SLET	<input type="text"/>	GATE	<input type="text"/>	CAT	<input type="text"/>
IAS/IPS etc	<input type="text"/>	State PSC	<input type="text"/>	UPSC	<input type="text"/>	Others	<input type="text"/>

5.6 Details of student counselling and career guidance

- Arcd (Academic registration and Counselling division), SWD (Student welfare division) and ACC (Academic counselling Cell) jointly do the academic and non-academic counselling of students. A faculty member is assigned to each student and they periodically interact with students.
- The Placement unit conducts around 5-6 student mentoring sessions across 3 Indian campuses in one calendar year. The participants are generally pre-final year & final year students. The pre-final year sessions generally are on preparatory tips for internships, scope on sector/profile etc. Statistics of previous years are shared with students for their guidance.
- For final year students, the initial sessions are on placement redg. resume building , interview tips etc. Before the start of each placement cycle, the placement unit shares the policy, rules & top companies who will be visiting campus. This process repeats again after 1st Phase of placements(each cycle) where students are mentored on upcoming roles. These sessions are exclusive of training sessions which are also conducted by Placement team which focus on skill-gap analysis & interview preparation. Placement team in collaboration with industry experts guide students on future career aspects after engg

Peer Mentorship Programme

- PMP is a student initiative consists of group of 80 students who takes care of campus tour for the newly admitted students and their parents.
- Each senior student takes care of a 4-5 junior students and help them in setting their academic activities etc.

There two counseling facilities running in our campus: (1) Clinical Counselor visits three days in a week for counseling the students (2) M-Power Counseling cell was introduced

No. of students benefitted

825

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
318	2134	1696	161

* Please refer to **Annexure 5.7** for details

5.8 Details of gender sensitization programmes

To maintain a working and learning environment free of intimidation, fear, bullying, revenge, retaliation in which students, faculty, and staff can develop intellectually, professionally, personally, and socially, 'Gender Champions' and 'Internal Complaints Committees' formally take care of Gender Sensitization Program in the Institute.

In each and every campus Gender Champions is a committee of students who undertake various activities to strengthen the potential of young boys and girls to advocate for gender equality and monitor progress towards gender justice under the guidance of Nodal Teachers.

Campus level Internal Complaints Committees (ICC) with members from faculty, staff and students entertain any kind of harassment complaint; also organize seminars/workshops/talks on gender related issues from time to time.

** Please refer to Annexure 5.8 for details*

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level	724	National level	527	International level	64
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No. of students participated in cultural events 59

State/ University level	367	National level	85	International level	-
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** Please refer to Annexure 5.9.1 for details*

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level	399	National level	395	International level	2
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Cultural: State/ University level	65	National level	44	International level	-
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5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	5683	260552341
Financial support from government	621	20680380
Financial support from other sources	60	715600
Number of students who received International/ National recognitions	-	-

** Please refer to Annexure 5.10 for details*

5.11 Student organised / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed:

2

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

BITS Vision

BITS Pilani is focusing on developing their undergraduate program in engineering and the sciences by including more opportunities for research. As part of the Vision 20/20 Plan, we are striving to become one of the top three technical universities in India and one of the top 25 technical universities in Asia.

BITS Mission

BITS Pilani mission is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century.

The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's great challenges. BITS is dedicated to providing its students with an education that combines rigorous academic study and the excitement of discovery with the support and intellectual stimulation of a diverse campus community. We seek to develop in each member of the BITS community the ability and passion to work wisely, creatively, and effectively for the betterment of humankind.

6.2 Does the Institution has a management Information System

Yes. ERP system implemented.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

Curriculum comprehensively revised at regular interval via a participatory process.

6.3.2 Teaching and Learning

- **Continuous Feedback** is obtained from faculty, student, industries, practice school organizations, campus interview teams, alumni and parents. Structured feedback is collected anonymously from students regarding each course through a planned questionnaire at least once in a semester. Further 24x7 online feedback systems are also available to students to provide qualitative feedback. The suggestions are conveyed to the respective course instructors within the same week to improve the conduct of the course. In addition, Student Faculty Council (SFC) facilitating class committee meetings between students and faculty has been recently added to the feedback process. A quantitative summary of feedback is prepared and conveyed to the respective instructors. Faculty members who teach a course have the freedom to customize the course within the broad contour of the course description that has been approved. The instructor(s) of the course(s) can also give reports and suggestions on the course operation and modification of the course offering.
- Review the handouts of all the courses offered by a department with the assistance of the Departmental Committee of Academics (DCA)

6.3.3 Examination and Evaluation

The process of review of the question papers of all the courses offered by a department with the assistance of the Departmental Committee of Academics has been arrived for ensuring the quality of question papers. The departments successfully completed this process by March 2018 and have also shared it with the respective course instructors.

6.3.4 Research and Development

PhD students are provisionally admitted by Institute wide admission test which consists of written test and interview.

A separate PhD qualifying examination is conducted for all provisionally admitted students.

Regular monitoring of progress of research by Departmental Research Committee (DRC). And Doctoral Advisory Committee DAC through report and presentations.

At least two publications in SCOPUS- Indexed Journals/conference proceedings, is mandatory to submit PhD thesis.

BITS Pilani has increased fellowship support to selected PhD students from Rs 2500/- to Rs 25000/- per month.

6.3.5 Library, ICT and physical infrastructure / instrumentation

Improvements in the library services

- 25 New Kik Step Stools provided for Users convenience for easy access to shelves at higher and lower levels.
- 10 additional Reading Carrels made available for individual study.
- Replaced 20 Computer tables with new ones in Digital Library.
- Renewal of Federated Search for online databases (e-journals) and OPAC which enables User access from anywhere at any time.
- **Organised World Book and Copyright Day**

The event was celebrated by organising Book Exhibition, Talk by Author and Free distribution of books. Library organized the event with the objective to promote reading habits among the Institute's students, faculty and staff. Script Writer and Debut Author Ms. Daniela Tully, delivered a talk on "Writing Fiction and Reading Habits" on Sunday, 15th April 2018. She shared her experience about writing her debut novel "Hotel on Shadow Lake", script writing and working on critically-acclaimed projects especially the Oscar-winning The Help. At the end of the session she spoke about the importance of reading. The event concluded with a Read Aloud of the first chapter of her book by the author herself and brief book signing and interactive session. Book exhibition was held on 15th and 16th April 2018. Several Vendors displayed books from a wide range of academic subjects and other genres. The Book Exhibition provided a platform for faculty and students to browse the books and purchase. World Book and Copyright Day celebrations concluded on 23rd April 2018 with free distribution of Books and magazines to Students, Faculty and Staff in order to encourage reading habits.

* Please refer to **Annexure 6.3.5** for details

6.3.6 Human Resource Management

1. Professional Allowance
2. Sabbatical Leave
3. Extraordinary Leave
4. Consultancy & Testing Projects

* Please refer to **Annexure 6.3.6** for details

6.3.7 Faculty and Staff recruitment

1. On-Campus Tenured
2. On-Campus Non-Tenured
3. Off-Campus Tenured
4. Off-Campus Non-Tenured
5. Non-Teaching Recruitment

6.3.8 Industry Interaction / Collaboration

- Concerted effort towards engancement of Industry interaction in terms of engagement for collaborative research, Work intgrated Learning, Indutry immersion program for faculty and Internship program for students.
- Strengthened the feedback system to improve the overall PS (Internship) experience for students as well as the host organization
- New cell by name "Quality Assurance and Assessment Cell" was formed to enhance the quality of the PS reports submitted by students
- Identification of domain specific faculty members to guide students during PS-II course.
- Availability of skill gap courses for the benefit of students prior to PS-II for a few domains
- Preparation of domain specific course handout with specific learning outcomes for PS-I students.
- Structured orientation programme for PS-I students through activity mapping, process mapping, process improvement mapping at the host organization.
- Faculty visit to various organizations to identify the assignments well in advance prior to PS-I
- Gap lectures by the senior executives for the benefit of PS-I students at the host organization.
- Project specific and course specific allotment of students for PS-II course for few select organizations.
- Domain specific evaluation in the form of quiz during PS-II courses.

6.3.9 Admission of Students

We have strengthened the question bank for FD as well as for HD admissions by making new questions. Based on analytics carried out on the scoring pattern for BITSAT exam, this time we updated the FD question bank with significant number of new questions. The average scoring rate at different score levels have seen a decrease compared to earlier years.

A greater focus is now given on the admission of candidates who hold the foreign passport and we have received increased number of applications for International admissions for three of the Indian campuses at Pilani, Goa and Hyderabad.

Higher degree admissions this time were open to students with GATE/GPAT scores. The number of seats for higher degree admissions were also increased. Students were admitted to M.E/MPharm programmes with BITS Higher degree test scores and also with GATE/GPAT scores to improve quality admits.

6.4 Welfare schemes for

Teaching	Professional development fund of 1 lacs per year Children, Spouse, Self-education benefit Medical benefits Contributory PF Gratuity Sabbatical leave, Immersion scheme - University and Industry Research Initiation Grants Seed grant, Opera, Competitive Research Grant Relocation allowance LTC
Non teaching	Children, Spouse, Self-education benefit Medical benefits Contributory PF Gratuity LTC
Students	Scholarship for FD, HD, Ph.D. Students Contingency grant for Ph.D. Students Earn-while-you-learn scheme Teachin Assistant ship for higher degree students

6.5 Total corpus fund generated

Nil

6.6 Whether annual financial audit has been done

Yes

No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	-	-	-	-
Administrative	Yes	SR Batliboi & Associates LLP	Yes	Aneja Management Consultants, Mumbai

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes Yes No

For PG Programmes Yes No

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

Right from its inception, BITS has been vigorously pursuing reforms in examinations as suggested by various education commissions. As a result, the following processes have become standard practices to be followed by all faculty in all courses over the past four decades. During the period under review, they have been further strengthened. BITS believes that learning and evaluation go hand in hand. So whenever new pedagogies are adopted, it necessitates in new methods of evaluation, which have been developed.

- BITS Pilani is committed to ensure quality in all academic front. The university made it mandatory to examine the authenticity / orignality of every student report (first degtre, higher degree and Ph.D. thesis) by using software tool Turnitin. Each faculty member has been given a login and password for the same tool.
- Continuous evaluation throughout the semester, including a final comprehensive examination.
- Total internal evaluation for all courses, except PH D thesis, which is examined by professors / Scientists from reknowned Universities/ Institutions in India and abroad.
- Various types of evaluation suiting the needs of individual courses, viz., written tests, written quiz, online quiz, lab examination, seminar presentation, group discussion, viva. In the case of project type courses, submission of a final report before deadline and presentation/viva; in the case of industry internship (called Practice school in BITS) different kinds of evaluation components viz., diary writing, seminar, report, quiz, etc.
- Every course must have at least 20 % open book evaluation in first degree courses and atleast 40% in higher degree courses. During the period under review, a new academic regulation is finalized for the open book component.
- Number of courses where online examination components are there has increased during the period under review. These are conducted through Moodle software.
- A beginning has been made to offer some courses in the flipped mode, where course material in video form is available to students and class room interaction is used for

more involved discussion of the topics. The materials in digital form for these courses contain embedded quizzes so that the student can self-evaluate himself.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Not Applicable

6.11 Activities and support from the Alumni Association

The following activities are generally held:

- Silver Jubilee Meet
- Golden Jubilee Meet
- Various other reunions
- Distinguished Alumnus Award
- BITSians Day
- Farewell to Graduating Students
- Embryo & On-campus Lectures
- Scholarships
- Multiple Awards in the name of Professors, Teaching Excellence
- Chair Professorships
- Gurudakshina to recognize senior professors by Batch of 1975.
- Mega Projects such as Telepresence Facility, games Facilities upgradation etc.
- Entrepreneurship Development programmes and Courses – New

** Please refer to **Annexure 6.11** for details

6.12 Activities and support from the Parent – Teacher Association

6.13 Development programmes for support staff

Not Applicable

S.No	Training Program	Campus	No of Participants
1	Excel Training Program (Beginner & Intermediate stage)	Pilani	28
2	Academic Leadership Excellence Programme	Pilani	1
3	Workshop on Labour Contract & Compliance	Pilani	5
4	Prevention of Sexual Harassment Workshop	Pilani	2
5	Seminer on EPF, ESIC, Bonus & Gratuity	Pilani	6
6	Employee Productivity Enhancer	Pilani	21
7	Certification Course on 'Basic Life Support'	Goa	26
8	Higher Education Leadership Programme	Goa	1
9	High Impact Presentation Skills	Goa	7
10	Workshop on MS-Excel	Goa	30
11	Library Technology Conclave	Goa	2
12	Labour Law with Latest Amendments	Goa	3
13	MATLAB (Raspberry - Pi) and Microcontroller	Goa	2
14	ERP-HR / Payroll Capability Building Workshop	Goa	3
15	Solidworks software training	Goa	2
16	First Aid Awareness Training Program	Hyd	50
17	Microsoft Excel Training Program	Hyd	28
18	Defensive Driving Training	Hyd	5
19	Labour Law Orientation Program	Hyd	32

S.No	Training Program	Campus	No of Participants
20	Advance Course on Electrical Safety, Electrical Safety Audit and Risk Management.	Hyd	1
21	HR & Payroll workshop	Pilani / Goa / Hyd	19
22	Fire Safety Training	Dubai	37
	Total No. of Participants (Institute Wide)		311

6.14 Initiatives taken by the institution to make the campus eco-friendly

Initiatives taken by administration to encourage cashless transaction at all campuses.

The Maintenance Unit has planted saplings as part of efforts for carbon neutrality. Around 2000 saplings were planted to refurbish and to maintain landscaping at the campus and 500 saplings were planted for "Haritha Haram" to support the green drive of Telangana State Government at Hyderabad campus.

Maintenance Unit had taken certain measures to conserve water through renovation of existing STP for effective utilization of re-cycled water for landscaping, construction of a new STP with latest MBBR technology work, providing pressmatic taps with water aerators to minimize wastage of water. The Division is also contemplating to utilize rain water/certain extent of underground water for flushing and urinals in the academic blocks and hostel buildings and store the rain water by creating an artificial pond inside our campus and feasibility study is in process. Major renovation of Academic blocks and residential quarter is under way.

In order to conserve energy, LED lights were provided across the campus. Additional solar street lights were added to the existing alongside the campus pathways & outer Road and initiated the work on 1 MW solar roof top power plant which will be ready for commissioning in October 2018.

Adequate Trash Bins were provided across the campus to control the littering of the waste material and food waste generated from Students' Mess is being treated in-situ through thermophilic biometanation process and the biogas thus produced is being utilized as supplement fuel in the hostel kitchen for cooking.

As part of Hazardous Waste Management, e-waste generated is collected and sent either to e-waste dealer or to the collection point prescribed by pollution board and sewage water is being treated and the treated water is utilized for entire landscape area inside our campus and once the new STP is starts functioning, treated water can be used even for flushing.

7. Innovations and Best Practices

7.1 Innovation introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

- Mobile application for LMS developed
 - Browse the content of courses anytime anywhere
 - Receive instant notifications

- RFID technology and Self check-in and check-out KIOSK facility at library resulted
 - Quick & Efficient Circulation Operations
 - Enhanced Security for Library Items
 - Seamless Inventory Management
 - Emerging Technology Experience for Library users

- Waste disposal: All faculty / staff residences are provided with Blue / Green waste bins to enable waste segregation at source.
 - Green campus

- Sandbox lab is inaugurated where facilities such as laser printer, laser cutter, 3D printer and electronic tools to support creative projects by students outside classroom and curriculum.
 - Boost to student creative projects

- Library halls are renovated with meeting rooms and projector facilities are made available for the use by faculty and students.
 - Facilitate professional discussion

- In addition to the wired internet connections Faculty / Staff residence areas are now Wi-Fi enabled.
 - Introduce redundancy, ensure 24x7 availability of internet connection

- All financial transactions are fully digitized.
 - Better checks and balance and better MIS

- Department-wise training on designing/formulating course learning outcomes
 - Incorporation of learning outcomes in course handouts

** Please refer to **Annexure 7.1** for details*

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

1. Emphasising importance of Quality publication by faculty, and research scholars are emphasised. IQAC has a mandate to ensure quality of journal/conference proceeding publication. As per its recommendation, all the departments have worked out a list recommended of peer-reviewed journals, conference proceedings in categories like Tier 1, Tier 2 and Tier 3 which are in compliance with the UGC recommended list of Journals and are either SCI-indexed, SSCI indexed or SCOPUS indexed. Faculty, Ph.D. students, Higher degree students and undergraduate are publishing their work in those journals and conference proceedings.
2. Based on quality initiative the Departments have organized invited lecture by several eminent personalities. To encourage and ensure diversity in these talks and to encourage a greater student engagement, many alumnus, having well cherished achievements are also called for interaction with students and faculty.
3. The IQAC webpage set up by the University has been periodically updated with new information necessary for building transparency in the appointment teaching and non-teaching staff and their promotion, in admission of students in several undergraduate and postgraduate programmes and University research activities and its other outreach activities connecting Industries, Universities in India and abroad.
4. A 360° feedback is encouraged. Assessment of all the course Instructors by the students has been made effective apart from qualitative course feedback from students. Based on the feedback received, teachers have taken necessary corrective measures. Based on the feedback received from the students and also external experts and industry personals, the course content of several courses have been is updated.
5. To boost confidence among the various stake holders of Quality, IQAC organized direct interaction of administrative as well as teaching faculty with reputed ranking agency like Times Higher Education (THE), Quacquarelli Symonds (QS) etc.

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

A) University Review

The University Review Council comprises the Vice-Chancellor, the Advisor to Chancellor and the Executive Assistant to Chancellor. It undertakes reviews periodically at university level as also at the campus level. Through these reviews, BITS would like to:

- a. continuously improve all critical academic and non-academic processes leading to continuous improvement in the Institute's reputation
- b. grow in a quality way and ensure the Institute remains financially sustainable
- c. rapidly contemporize every aspect of its way of working

Scope of the reviews are as follows

- Faculty: Capacity and capability, Expectations, Faculty Engagement, Support, Rewards, Recognition, Talent pipeline etc.
- Research: Expectation, Contribution, Outcomes, Resources used etc.
- WILP & Industry Engagement: Execution of the Transformation Project and outcomes; Relevance, Rigour, Quality of WILP Programmes offered etc.
- Student Intake & Mix (FD, HD) and Academic Programmes: Growth and Mix of Students; Relevance, Rigour, and Quality of Academic Programmes offered etc.
- Student Placements: Employability, Employer perception etc.
- Regulations and Accreditation
- International Programmes & Collaboration: Growth & matrix of student exchanges, Faculty exchanges & MOU's with other universities
- ERP: Overall growth pattern
- Departments: Expectation, Contribution, Outcomes, Resources used

Reviews held till date

	University Review	Campus Review
1	14 July 2015 (Pilani)	7 Jan 2016 (Goa)
2	6 Oct 2015 (Hyd)	3 April 2016(Dubai)
3	6 Jan 2016 (Goa)	5 April 2016(Hyd)
4	8 April 2016 (Pilani)	7 April 2016 (Pilani)
5	21 Sep 2016 (Pilani)	22 Sep 2016 (Pilani)
6	16 May 2017 (Hyd)	17 May 2017 (Hyd) June 14 2017 (Dubai)
7	17 Oct 2017 (Pilani)	18 Oct 2017 (Pilani)
8	14 March 2018 (Goa)	15 March 2018 (Goa)

B) Basic Condition Evaluation

Basic Condition Evaluation is a well-designed assessment framework developed by Corporate Business Excellence. BCE format has been further modified by MABEC to take care of Campus activities. The process helps a campus to know the adequacy of its basic processes, conditions and standards which are needed for smooth running of the campus. It is seen that Campus having good level on BCE are able to sustain the achieved level of high performance.

The assessment framework provides guidelines to gauge key processes on three view points. Processes are categorized as:

1. 5S for Workplace Organising /Basic Upkeep
(5S: Sort, Straighten, Shine, Standardize, Sustain)
2. Safety, Health, Environment
3. Maintenance
4. Operation

Assessment requires the processes to be examined from the following three viewpoints and all three Indian campuses have been assessed already in this framework:

- a. Physical condition
- b. System
- c. Behavior.

*** Please refer to **Annexure 7.3** for details*

7.4 Contribution to environmental awareness / protection

i) Energy conservation Use of Energy Efficient Equipment

- Insulation of Hot Water Pipes
- Dual Layered Glass to prevent Green House Effect
- Propagation of CFL/LED and Energy Rated equipment's and fixtures in the whole campus
- Master Switches installed in for each class room
- CRT monitors being replaced with LCD/LED Monitors
- Thermostat controlled cooling systems

ii) Use of renewable energy: Solar Powered Street Lighting; Solar Powered Water Heating System.

iii) Water harvesting-

- New Academic Block is equipped with Rain Water Management System with Channelized Drain & Pipe Network, Rain Water Holding Tank, Pumps and Ground Water Recharge Pits.
- Approx. 2km of Storm Water Drain Line is also provided with four rain water recharge pits
- Rain Water Harvesting & Recharge Pits are provided at numerous locations of the campus.

iv) Efforts for Carbon neutrality- Tree plantation is carried out at regular interval to achieve carbon neutrality to cover the most open areas. Institute residents are encouraged to use bicycle as a transport medium within the campus. All the wastes generated in the campus are taken care of as per norms. Sustained effort put towards reduction of waste generation and to reduce electricity usage through increased reliance on renewable sources of energy.

- v) Plantation: Plantation drives to increase the green cover and replacement of deceased plants. We have self-sufficient staff quarters as well as external housekeeping contractors for maintenance of landscape.
- vi) Hazardous waste management: Scientific handling of hazardous waste and adequate measures to provide an eco-friendly environment within the campus.
- vii) E-waste management: e-waste generated is collected discretely and sent either to e-waste dealer or to the collection point prescribed by pollution control board

7.5 Whether environmental audit was conducted? Yes No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

Project Lakshya

BITS has initiated a project Lakshya with the Boston Consulting Group for defining the strategic plan for BITS. Key actions to be undertaken

- Detail out, refine and refresh the specifics of the strategy to achieve the vision
- Define and create alignment on the action plans and goals/ targets
- Bring the faculty and staff fully on board with the plan

Detail out the financial plan in light of the strategy

Following five focus areas have been identified:

- Research & Innovation
- Programs, Curriculum, Pedagogy and Quality Assurance
- Faculty
- Industry Connect
- Alumni Relations

Nielson study

A group of alumni proposed to look at measures to improve placements team engagement with the potential employers that visit / do not visit BITS campuses. The team recommended a market research study to help define the Brand Value Proposition will primarily indicate where does BITS Pilani as an educational institution stand on key performance and image metrics amongst the stake holders. Nielsen, a leading market research company, was engaged to carry out this study. The research study has been completed. BITS has implemented some of the suggested steps to reap benefits leading to having one of the best Placement statistics in the country.

Aon Hewitt

BITS Pilani had initiated a study with AON Hewitt on key responsibilities (also called Job Description) of various positions across BITS Pilani, such as University / campus Deans, HODs, Managers etc. This brought in standardization and clarity in deliverables and expectations of employees.

Continuous and Transparent Evaluation

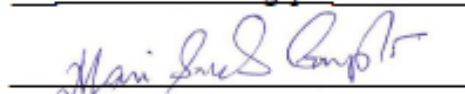
BITS Pilani, since its inception, has been following a continuous evaluation system. All evaluation components are internal – conducted and evaluated by the faculty who is/are teaching the course and at the same time centrally monitored. The components of evaluation (tests, quizzes, take-home assignments, laboratory exercises, seminars, reports etc.) are specified with weightages, duration, and time in the handout issued by the teacher in the beginning of the semester. For each component, the teacher evaluates and returns the answer sheets to the students within a week of completion of that component. The model answers and marking scheme are also displayed. The student has the right to seek a clarification or re-evaluation. The teacher considers all such requests, clarifies, and/or re-evaluates the answers, and returns it to the student. Further redress mechanisms are available to the students in the form of an examination committee in each campus. The process of internal evaluation is robust enough such that only about one in a thousand students or less has had ever to approach the examination committee

8. Plans of institution for next year

- To review the analytics of automatic recording and distribution of classroom lectures in four classrooms initiated during AY 2017-18. It is planned to study the data analytics on the student usage, collect the feedback from faculty and students to understand its impact on the overall teaching and learning of these courses.
- To work towards framing a plagiarism policy for the institute in consultation with the HoDs
- To co-ordinate with HoDs to look into the available data related to teaching and learning (such as biometric attendance data, student feedback (qualitative & quantitative), MGPV, Impartus Video Lectures Statistics, Class Committee Minutes etc. to help refine their specific goals for the Department.
- Development of software interfaces and mobile applications for students use (eligibility requirements, courses completed, courses to be done, CGPA etc.)
- An overall review of the structure of first degree programs to be undertaken during 2018-2019
- Construction of new academic blocks is in progress and 2 blocks will be ready by July 2018 and other 2 blocks by December 2018.
- SWD is planning to ascertain “Students Satisfaction Index” for various services provided by the Division
- Expansion of campus as planned in Growth phase II with new hostels and academic buildings and increased student strength.


* Please refer to **Annexure 8** for details Refer to Annexure 8

Name Mani Sankar Dasgupta



Signature of the Coordinator, IQAC

Name Souvik Bhattacharyya



Signature of the Chairperson, IQAC
