



YEARLY STATUS REPORT - 2021-2022

Part A

Data of the Institution

1. Name of the Institution

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

- Name of the Head of the institution Prof V. Ramgopal Rao
- Designation Vice Chancellor
- Does the institution function from its own campus? Yes
- Phone no./Alternate phone no. 01596255247
- Mobile no 9784689129
- Registered e-mail iqac_bits@pilani.bits-pilani.ac.in
- Alternate e-mail address vc@pilani.bits-pilani.ac.in
- City/Town Pilani
- State/UT Rajasthan
- Pin Code 333031

2. Institutional status

- University Private
- Type of Institution Co-education
- Location Rural

- Name of the IQAC Co-ordinator/Director **Prof. Mani Sankar Dasgupta**
- Phone no./Alternate phone no **01596255512**
- Mobile **9829227459**
- IQAC e-mail address **dasgupta@pilani.bits-pilani.ac.in**
- Alternate Email address **iqac.office@pilani.bits-pilani.ac.in**

3.Website address (Web link of the AQAR (Previous Academic Year)

<https://www.bits-pilani.ac.in/AQARS>

4.Whether Academic Calendar prepared during the year?

Yes

- if yes, whether it is uploaded in the Institutional website Web link:

https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AOAR_21-22/SN4/SN4_PGHD.pdf

5.Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	Five Star	82.55	2000	07/02/2000	07/02/2012
Cycle 2	A	3.71	2009	29/01/2009	29/01/2014
Cycle 3	A	3.45	2016	16/12/2016	16/12/2021

6.Date of Establishment of IQAC

25/05/2004

7.Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
Dr. Arya Kumar	Consultancy	Seth Motilal PG College, Jhunjhunu	2021, 24 months	4.8
Dr. Navneet Goyal	Sponsored	Founding Years Learning Solutions	2021, 11 months	21.37
Dr. Poonam Goyal	Sponsored	Google asia pacific Pte ltd	2021, 24 months	7.27
Dr Yashvardhan Sharma	Sponsored	Towards vision technologise (C-Zentrics) private ltd.	2021, 36 months	18.61
Dr Chennu Ranganayakulu	Consultancy	M/s. Rangsons Aerospace Pvt Ltd, 142, KMK Tower, 3rd Floor, KH Road, Banaglore-560027	2021, 12 months	7.08
Dr S S Vasani (CSIRO), Dr. S Murugesan	Sponsored	Commonwealth scientific and industrial research origination	2021, 12 months	25.77
Dr. Sandeep Joshi	Consultancy	HUGHES SYSTIQUE (P) LTD,	2021, 6 months	12.04
Dr. Sumanta Pasari	Sponsored	Center for Sustainability Science, Academia	2021, 24 months	10.94

		Sinica, Taiwan		
Dr Rajesh Kumar	Sponsored	C3IHUB (IIT Kanpur)	2021,36 months	18.14
Dr. M S Dasgupta	Sponsored	The Royal Norwegian Embassy in New Delhi	2021,36 months	78
Dr. YASHVARDHAN SHARMA	Sponsored	CommerceIQ	2021,36 months	36.28
Dr. Kamlesh Tiwari	Consultancy	LiveSmart KK Japan	2022,3 years	15.5
Dr. Pratik Narang	Sponsored	Kwikpic Tech Services	2022,24 months	6.01
Dr. Somak Chatterjee	Sponsored	Gujarat Fluo rochemicals ltd.	2022,12 months	9.44
Dr. Amit Dua	Sponsored	Neblio Technologies Pvt. Ltd (CoinDCX)	2022,12 months	10
Dr Kamlesh Tiwari	Sponsored	mapmyIndia	2022,36 months	18.85
Dr. Sai Sesha Chalapathi Gattupalli	Sponsored	TIH-IOT, IIT Bombay	2022,24 months	25.29
Dr. K S Sangwan	Sponsored	TUB Germany	2022,3 years	14.3
Dr. Pratik Narang	Sponsored	Indian Institute of Science Bengaluru	2021,12 months	6.6
Prof D Sriram	Internationa l	KI, Sweden (Consultancy)	2021,48 months	4.65

Dr Kumar Pranav Narayan	Industry	Esoerer Onco Nutrition (EON)	2021,24 months	20
Dr Harish V Dixit	Consultancy	RAKON	2021,12 months	11.47
Dr. Lov Kumar	Consultancy	TestAIng Solutions Pvt. Ltd.	2021,24 months	8.88
Dr. Paresh Saxena	Industry	Axiado India Pvt Ltd	2021,24 months	67.37
Prof Sridhar Raju	Industry	KK Plastic Waste Management Limited	2021,12 months	6.84
Prof Sanket Goel	International	India and Norway	2021,12 months	4.5
Dr Akash Chaurasiya	Consultancy	Novartis Health Care	2021,4 months	2.6
Dr Sankar Ganesh	Industry	GPS Renewable	2021,12 months	5.04
Dr Nirmal J	Industry	Velux Stiftung -Narayana Netralaya	2021,24 months	44.8
Dr Nirmal J	Consultancy	Incozen	2021,6 months	1.2
Dr Dipanjan Chakraborty	Industry	OnionDev - GIZ	2021,12 months	8.96
Dr Chetan Kumar V	Industry	DHRUVA	2022,12 months	7.43
Dr Harish V Dixit	Consultancy	M/s Andhra Electronics	2022,12 months	7.08
Dr. Akshay Venkateswaran	NON-GOVERNMENT	Civil Matrix Contracting LLC, Dubai	2021,7 months	0.92
Dr. Kingshuk Sarkar	NON-GOVERNMENT	Goa Institute of	2021,9 months	4.9

		Management		
Dr. Sougata Sen	NON-GOVERNMENT	TensorFlow Team (Google Faculty Award)	2021,1 Year	5.76
Dr. Sachin Waigaonkar	NON-GOVERNMENT	Roots Multiclean Ltd	2021,3 Weeks	1.19
Dr. S D Manjare	NON-GOVERNMENT	Deccan Fine chemicals (India) Pvt. Ltd	2021,1 Year	12.44
Dr. Pradeep Kumar Sow	NON-GOVERNMENT	ONGC Energy Centre (OEC)	2021,2 Years	46.77
Dr. Mainak Banerjee	NON-GOVERNMENT	BASF Chemicals India Private Limited	2021,6 months	1.42
Dr. Ashwin Srinivisan	NON-GOVERNMENT	Google Faculty Award	2021, 2 years	7.35
Dr. Sachin Waigaonkar	NON-GOVERNMENT	Polymerlink India Pvt Ltd	2021,1 Month	2.36
Dr. Veeky Baths	NON-GOVERNMENT	Course5 Intelligence Private Limited	2021,36 months	12.27
Dr. Srikanth Mutnuri	NON-GOVERNMENT	Bill and Milenda Gates Foundation (Georgia Institute of Technology, GIT)	2021, 12 months	211.63
Dr. S D Manjare	NON-GOVERNMENT	Deccan Fine Chemicals	2021,2 years	8.26

		(India) Pvt Ltd		
Dr. D M Kulkarni	NON-GOVERNMENT	PIEDS (Pilani innovation and entrepreneurship development society	2021,2 years	4.0
Dr. Rajiv Kumar Chaturvedi	GOVERNMENT	Union Ministry of Environment and Forests, Govt. of India	2021,6 months	20.15
Dr. Rajiv Kumar Chaturvedi	NON-GOVERNMENT	IORA Ecological Solutions Pvt Ltd	2021,1 Year	4.72

8. Whether composition of IQAC as per latest NAAC guidelines Yes

- Upload latest notification of formation of IQAC [View File](#)

9.No. of IQAC meetings held during the year 7

- The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website. (Please upload, minutes of meetings and action taken report) Yes
- (Please upload, minutes of meetings and action taken report) [View File](#)

10. Whether IQAC received funding from any of the funding agency to support its activities during the year? No

- If yes, mention the amount

11. Significant contributions made by IQAC during the current year (maximum five bullets)

1. Academic progress, the extension of the curriculum, and changes to the course material 2. It emphasizes on quality concerns and promotes dialogue among participants. Enhancing research activities was prioritized through high level publications (in SCOPUS listed journals), recurring workshops, conferences, and educational institutions. 3. The institution has established an efficient process to address stakeholder worry and mental stress through collaboration with outside specialists. 4. Enhancing internal funding to enable researchers to access external money

12. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
<p>1. Looking at the popularity and all pervasive usage of the contemporary subject matter of Nano Technology, it was proposed that one such course is permitted to be opted by various discipline students with varying preparation level. Obstructions in terms of pre-requisites to be relaxed.</p>	<p>1. In the 204 th Meeting of the Senate held on Tuesday, the 17 th August 2021 Change in the pre-requisite requirements for course BITS F429: Nanotechnology for Renewable Energy and Environment: The Senate approved pre-requisite requirements for course BITS F429: Nanotechnology for Renewable Energy and Environment "BITS F201: Material Science and Engineering (Pre-requisite) OR CHEM F333: Chemistry of Materials (Pre-requisite) OR PHY F414: Physics of Advanced Materials (Pre-requisite) OR CHE F243: Material Science and Engineering (Pre-requisite) OR ME F213: Materials Science and Engineering (Pre-requisite) OR MF F213: Materials Science and Engineering (Prerequisite)."</p>
<p>2. The MBA program of BITS Pilani was recently enriched and accordingly a wider interest among students was perceived. The need of a broad based input is recommended</p>	<p>2. In the 207th Meeting of the Senate held on Friday, the 29th July 2022, Agenda item 07: a proposal for Modification of the Eligibility Criteria of Master of Business Administration (MBA) Programme at BITS Pilani was taken up. After detailed deliberations, the Senate approved the proposal for Modification of the Eligibility Criteria of the Master of Business Administration (MBA) Programme at BITS Pilani as mentioned hereunder: Candidates holding a bachelor's degree of minimum three years duration in any discipline or its equivalent with at least 60% aggregate marks, and having studied at</p>

	least one subject in mathematics or statistics at the high school (10+2) or higher level.
<p>3. Looking at the importance given on number of active MOUs by NAAC, the need of signing formal MOUs where some faculty or students are already engaged in academic front in terms of research or development related work with their counterpart at other reputed university is emphasized</p>	<p>3. In the 207th Meeting of the Senate held on Friday, Agenda item 10: A number of new MOUs / Agreements signed by the Institute with other organizations were reported and a healthy growth in active MOUs are noted: 1) Curtin University, Bentley, Perth, WA 6102, Australia 2) Wheels India Niswarth Foundation (WIN Foundation), IIT Gandhinagar 3) National Centre for Additive Manufacturing Foundation (NCAM), Hyderabad, Telangana 4) Sri Konda Laxman Telangana State Horticultural University, Mulugu, Siddipet, Telangana 5) State Board of Technical Education & Training, Telangana 6) TCG Centres for Research and Education in Science and Technology (TCG CREST), Kolkata 7) Human Biosciences, Inc, Gaithersburg, MD, USA 8) Mohammed Bin Rashid Establishment for Small and Medium Enterprises (SMEs) Development, Dubai, UAE 9) Deutsche Akademie fur Digitale Bildung (DADB), Germany 10) Indian Institute of Technology Kanpur, Kanpur, UP</p>

13. Whether the AQAR was placed before statutory body?

Yes

- Name of the statutory body

Name	Date of meeting(s)
Managment	15/12/2021

14. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning? **Yes**

15. Whether institutional data submitted to AISHE

Part A**Data of the Institution**

1.Name of the Institution	BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE
• Name of the Head of the institution	Prof V. Ramgopal Rao
• Designation	Vice Chancellor
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	01596255247
• Mobile no	9784689129
• Registered e-mail	iqac_bits@pilani.bits-pilani.ac.in
• Alternate e-mail address	vc@pilani.bits-pilani.ac.in
• City/Town	Pilani
• State/UT	Rajasthan
• Pin Code	333031
2.Institutional status	
• University	Private
• Type of Institution	Co-education
• Location	Rural
• Name of the IQAC Co-ordinator/Director	Prof. Mani Sankar Dasgupta
• Phone no./Alternate phone no	01596255512
• Mobile	9829227459

• IQAC e-mail address	dasgupta@pilani.bits-pilani.ac.in				
• Alternate Email address	iqac.office@pilani.bits-pilani.ac.in				
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.bits-pilani.ac.in/AOARS				
4.Whether Academic Calendar prepared during the year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://ikac.bits-pilani.ac.in/NAC-SSR-CYCLE-4/AQAR_21-22/SN4/SN_4_PGHD.pdf				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	Five Star	82.55	2000	07/02/2000	07/02/2012
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8.Whether composition of IQAC as per latest NAAC guidelines	Yes
<ul style="list-style-type: none"> • Upload latest notification of formation of IQAC 	View File
9.No. of IQAC meetings held during the year	7
<ul style="list-style-type: none"> • The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website. (Please upload, minutes of meetings and 	Yes

action taken report)	
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11. Significant contributions made by IQAC during the current year (maximum five bullets)	
<p>1. Academic progress, the extension of the curriculum, and changes to the course material 2. It emphasizes on quality concerns and promotes dialogue among participants. Enhancing research activities was prioritized through high level publications (in SCOPUS listed journals), recurring workshops, conferences, and educational institutions. 3. The institution has established an efficient process to address stakeholder worry and mental stress through collaboration with outside specialists. 4. Enhancing internal funding to enable researchers to access external money</p>	
12. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year	

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<p>2. The MBA program of BITS Pilani was recently enriched and accordingly a wider interest among students was perceived. The need of a broad based input is recommended</p>	<p>2. In the 207th Meeting of the Senate held on Friday, the 29th July 2022, Agenda item 07: a proposal for Modification of the Eligibility Criteria of Master of Business Administration (MBA) Programme at BITS Pilani was taken up. After detailed deliberations, the Senate approved the proposal for Modification of the Eligibility Criteria of the Master of Business Administration (MBA) Programme at BITS Pilani as mentioned hereunder: Candidates holding a bachelor's degree of minimum three years duration in any discipline or its equivalent</p>

	with at least 60% aggregate marks, and having studied at least one subject in mathematics or statistics at the high school (10+2) or higher level.
<p>3. Looking at the importance given on number of active MOUs by NAAC, the need of signing formal MOUs where some faculty or students are already engaged in academic front in terms of research or development related work with their counterpart at other reputed university is emphasized</p>	<p>3. In the 207th Meeting of the Senate held on Friday, Agenda item 10: A number of new MOUs / Agreements signed by the Institute with other organizations were reported and a healthy growth in active MOUs are noted: 1) Curtin University, Bentley, Perth, WA 6102, Australia 2) Wheels India Niswarth Foundation (WIN Foundation), IIT Gandhinagar 3) National Centre for Additive Manufacturing Foundation (NCAM), Hyderabad, Telangana 4) Sri Konda Laxman Telangana State Horticultural University, Mulugu, Siddipet, Telangana 5) State Board of Technical Education & Training, Telangana 6) TCG Centres for Research and Education in Science and Technology (TCG CREST), Kolkata 7) Human Biosciences, Inc, Gaithersburg, MD, USA 8) Mohammed Bin Rashid Establishment for Small and Medium Enterprises (SMEs) Development, Dubai, UAE 9) Deutsche Akademie fur Digitale Bildung (DADB), Germany 10) Indian Institute of Technology Kanpur, Kanpur, UP</p>
<p>13. Whether the AQAR was placed before statutory body?</p>	<p>Yes</p>
<ul style="list-style-type: none"> Name of the statutory body 	

Name	Date of meeting(s)
Managment	15/12/2021
14.Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning?	Yes
15.Whether institutional data submitted to AISHE	
Year	Date of Submission
2022	15/04/2022
16.Multidisciplinary / interdisciplinary	
<p>During the early years of its inception, i.e., 1964 to 1970, the Institute, with the support of Ford Foundation Grant, collaborated with the Massachusetts Institute of Technology (MIT), USA. It helped the Institute to bring in the semester system, modular structure of courses, continuous and internal evaluation, letter grading, to name a few, thereby making an independent mark in its pedagogy in terms of integrating multidisciplinary and interdisciplinary nature of courses in curriculum design. The proverbial feather in the cap came in the form of institutionalized linkages with the industries. Over a period of time, the Institute also introduced several flexibilities in its curricular structure making it dynamic and orienting it towards student excellence.</p> <p>After Mission 2012, a follow-up program called Mission 2015 was initiated with focus on seven new thrust areas. Mission 2015 brought further engagement in areas like international student admission, institution-wide innovation and incubation centres and policies, interdisciplinary centres-of-excellence for research and application, Teaching Learning Centres for research on new age teaching and pedagogy. After two major transformation Missions, the leadership decided to consolidate and review the progress made thus far in the journey towards Vision 2020 and introduced periodic campus and institution reviews. These reviews are now completely institutionalized and are an excellent platform for departments and divisions across BITS to introduce interdisciplinary curriculum.</p> <p>A focus on design thinking, analytics and emerging technologies. We have mandatory courses around each of these topics in both the first and second years. Students can choose up to two</p>	

specialisations from a set of five that includes new age specialisations such as Entrepreneurship and Innovation, and Ecommerce and Digital Leadership.

BITS Pilani has formed a Section 8 not-forprofit company (BITS BioCyTiH Foundation) to undertake the interdisciplinary research, innovation and technology development in the domain of Bio-CPS. The Hub will be bringing together experts across the fields of biology, electronics, chemistry, computer science, etc. The Hub shall be translating academic R&D into technologies for the industries such as health care, diagnostics, medical devices, wearables, biosensor, clean water, food safety and quality and monitoring, and other allied areas.

17.Academic bank of credits (ABC):

Structure of the Integrated First Degree Programmes with well-defined credits (units)

The structure and the requirements of the first degree programs ,namely, B.E.,B. Pharm., and M.Sc., are provided in the following sections.

The structure and the requirements of the first degree programs, namely, B.E., B. Pharm, M.Sc., and M.Sc.(Tech) are the same as provided in the following sections although the nomenclature of these programs is indicated without the Hons. / Tech. tag in the rest of the section.

The category-wise structure of each program:

Category	Number of Units Required	Number of Courses Required
(I) General Institutional Requirement		
Humanities Electives	8	3
Science Foundation	12	6
Mathematics Foundation	12	4
Engineering Foundation	6	2
Technical Arts	10	4
General Awareness / Professional Courses	3 to 6	1 to 3
Sub-Total	51 to 54	20 to 22
(II) Discipline Requirement		
Core	33 to 48	10 to 16
Elective	12 to 27	4 to 9

Sub-Total	57 to 60	15 to 20
(III) Open Electives	15 to 27	5 to 9
Course-work Sub-Total	129 (min)	41 (min)
(IV) PS-I and II	25	2
OR	OR	OR
Thesis	9 to 16	1
Total	144 (min)	42 (min)

A student should complete the minimum number of courses and units required in each category as well as meet the minimum requirements of courses (42) and units (144) in total.

1. The following courses are needed to meet the General Institutional Requirement: a) General Biology, Biology Laboratory,

General Chemistry, Chemistry Laboratory, Mechanics, Oscillations and Waves, and Physics Laboratory under the head of Science Foundation. For specific programs, General Physics may replace Mechanics, Oscillations and Waves. b) Electrical Sciences, Thermodynamics and Process Engineering under the head of Engineering Foundation. c) Computer Programming, Workshop Practice, Engineering Graphics, and Technical Report Writing under the head of Technical Arts. d) Principles of Economics, or Principles of Management and Environmental Studies* under the head of General Awareness / Professional courses. *[Students completing this course will be awarded a non-letter grade (GOOD or POOR)]

2. The courses under the following heads are designed to meet the General Institutional Requirement under the head of Humanities Electives:

(a) Languages and Literature

(b) History and Philosophy

(c) Political and Social Sciences

(d) Fine Arts and Professional Arts

3. A thesis is for 16 units and for a full semester duration. But a student has the option of pursuing a Thesis of 9 units concurrently with coursework over a full semester, in which case the additional coursework would be at least 2 courses of total 6 units to meet the minimum unit requirements.

(i) M. E. and M. Pharm:

The following are structure and requirements: 1. (a) at least 12 courses and at least 48 credit units attributed to coursework; and (b) In addition, a Practice School (of at least 5½ months duration and 20 units) or a Dissertation (of at least 1 semester duration and 16 credit units) (b). A 4 unit course on Research Practice is mandatory for all students of BITS G540 Research Practice (c). Each Department may stipulate - for each program a set of 4 to 5 courses (of at least 16 units and at most 20 units) per semester.

(a) This adds up to at least 12 courses and at least 48 units of coursework but with a maximum of 15 courses and at most 60 units of coursework stipulated by the Department.

(b) The nominal chart for a program would be as follows:

Year	I Semester	II Semester
I year	4 to 5 courses (16 to 20 units)	4 to 5 courses (16 to 20 units)
II year	4 to 5 courses (16 to 20 units)	PS / Dissertation

Admission with Advanced Standing

When a candidate for any programme in the three tiers of education of the Institute comes with a preparation beyond the minimum requirement for admission in that programme, the admission of such a candidate is handled under what is known as admission with advanced standing. While such admission is not available as a matter of right, at the time of admission the Institute would spell out in detail the advanced credit it proposes to give to the candidate and the matter would be handled within the framework of the Institute's operation for normal students.

Transfer

(i) Within the same tier It is possible for a student to seek transfer from one programme to another in the middle of a programme without starting from the beginning. This is possible because he/she is given credit for what he/she has done till then towards the requirements of the programme to which he/she seeks the transfer.

18.Skill development:

BITS have a strong focus on soft skills. The Winning at the Workplace (WAW) track will offer students courses to develop their emotional intelligence and people skills, courses in liberal arts and essential workplace skills. Ph.D students are positioned at the top of the knowledge pyramid on their subjects of interest. Due to this advantage, their ability to identify opportunities for venture creation is a low-hanging fruit within a university system, especially in specialized venture creation. The Entrepreneurship Programme for Ph.D Students at BITS Pilani, aims to fill the gaps of opportunity recognition and ideation stages and impart skills on entrepreneurship. The BITS BioCyTiH Foundation focuses on Human resource development.

The TIH will create this future talent pipeline in the area of Bio-CPS through fellowships and skill training in the areas of healthcare technology, next generation sequencing, proteomics, metabolomics, MEMS, biosensors, Bio-CPS entrepreneurship, etc. The Hub will conduct skill development programmes for various target segments such as industry professionals, students, faculty, etc. Fellowship programmes (UG/ PG/ PhD) in Bio-CPS will be offered and supported by the TIH. Faculty Fellowships and Chair Professorships shall also be offered by the TIH.

Central Workshop provides training to students and caters to the maintenance & fabrication needs of the Institute. Through the course "Workshop Practice", all the first-degree students are trained to acquire the necessary skills related to various manufacturing processes like machining, rapid prototyping (3D printing), fitting, carpentry, smithy, foundry, sheet metal, welding, etc. and two computer-oriented exercises, a CNC Simulation software (by CIMCO) and MASTER CAM, and a Manufacturing Simulation software called FlexSim. Further, students of B.E. (Mechanical Engineering) are given in-depth training in various courses such as "Manufacturing Processes", "Advanced Manufacturing Process", "Computer-Aided Manufacturing" and for ME "Flexible Manufacturing Systems". Apart from routine maintenance and training, the workshop also provides fabrication services pertaining to the project works of students and also offers technical support for TBI works.

19.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

1. BITS F214 (Science, Technology and Modernity) - Interrelationship between science, technology and modern

society; forms in which beliefs and values of a modern society shape sciences and technologies; forms in which scientific discoveries and technological developments influence and shape modern societies. Scientific Revolution and the emergence of modernity as a social condition; Enlightenment promise of progress within the economic system of capitalism. Some critiques of the received view; recent phase of capitalism and the role of technology in globalization.

2. BITS F399 (Humanistic Theories of Science and Technology) - Ways of considering the interrelationship among three of the major dimensions of our culture: its science, its technology and its humanistic orientation. Alternative ways of thinking about science and technology, diverse approaches of humanistic scholarship to studying science and technology, along with their historical sources. Approaches by social scientists to analyze technical fields of science and technology.
3. GS F213 (Development Theories) - This course focuses on the concept of development, development theories and practices in the modern world. Interplay between theory and practice and the outcome of this relationship are also explored in the syllabus. The course provides an overview of development thinking from 'classical' development ideas to alternative and post development theories. The course then attempts to critically review contemporary debates about development, including the link between the current world order and the Development goals of the developing countries.
4. GS F224 (Print and Audio-Visual Advertisement) - The Dimensions of Advertising; Advertising and Marketing; Creative strategy and Creative process; Creative Execution: Art and copy; Media strategy; Advertising research; Relationship Building: Public relation and Corporate advertising; Ethical issues.
5. GS F231 (Dynamics of Social Change) - Nature of society, social institutions; concept and nature of socio-cultural change, obstacles, rate and direction of change; factors of social change-ideological, economic, technological and political demographics; agencies of social change-education, leadership, propaganda, legislative reforms; five-year plans and social change, peasant and land reform, bhoodan and gramdan; changing pattern of family, marriage, caste and religion.
6. GS F242 (Cultural Studies) - Introduction to Cultural studies, Importance of cultural studies, types of cultural

studies, relation to Critical theory, relation to Literary Criticism. Introduction to theories such as Communication studies, Film studies, Feminist theory, Art history/Criticism, Societal impact, business relevance, introduction to myriad practices, institutions, beliefs and varied social structures within a given culture.

7. GS F312 (Applied Philosophy) - Content of Philosophical Perspectives - Ethical, Logical, Epistemological and Metaphysical; Ethics and Social Dilemmas; Social Justice and Equality; Freedom of Expression; Social and Value Dimensions of Technology; Impact of Information Technology on the Quality of Life; Computer and Internet Crime; Democratic Values and the Internet.
8. GS F322 (Critical Analysis of Literature and Cinema) - Creativity and Aesthetics; An overview of Major Movements in Literature and Cinema; Interpretation of Selected Works; Cinema & Art; Understanding Drama: Theme, Character, Plot, form; Understanding Poetry: Diction, Imagery, Symbolism, Structure and Form, Personification, Apostrophe, Sound and Rhythm; Understanding fiction: Setting, Point of View, Plot and Character; Understanding Short Fiction: Meaning and message, Style and Coherence; Understanding Cinema: Plot; Character; Screenplay; Linguistic, Social, Musical codes; Cinematic Codes; Camera Work.
9. GS F331 (Techniques in Social Research) - Principles of social research, research process, stages of social research, choosing the research problem, objectivity and subjectivity in social research, ethics in social research, ethical codes of practice, confidentiality and anonymity, privacy, Effects of Value in social research, constructing social explanations, descriptive studies, explanatory studies, designing a social research proposal, quantitative research, survey, sampling, SPSS, various statistical tests, qualitative research, observation: participant and non-participant, issues in conducting qualitative research studies, case studies of socio-economic, political, health, gender and developmental issues, interview as social interaction, ethnographic research, field study, hypothesis testing, analysis of data, report preparation and documentation, factors limiting application of social research, evaluation research and development of social indicators.
10. GS F332 (Contemporary India) - Topics will include some or all of the following: economic process; contemporary Indian planning and industry; political processes; Contemporary Indian political scene and Indian administration: India and

- the contemporary world; social processes: contemporary Indian educational scene; religion and caste system; Indian science; Indian women; cultural processes; contemporary Indian art, music, dance, theatre, cinema and literature.
11. HSS F222 (Linguistics) - Linguistics as a field of study and its relationship with other disciplines; nature of language; its varieties and role in society; concepts of structure, system, unit and class; theories of linguistic analysis.
 12. HSS F223 (Appreciation of Indian Music) - The course is intended as an appreciation of Indian music; the emphasis will be upon exposing the students to musical performances, records, tapes, both vocal and instrumental; through these illustrations the consciousness in terms of the distinction between Raag and Taal etc., is expected to be derived; the course will pick up a certain number of Raags from the basic thaats and demonstrate the delineation of the Raag through Alap, through various improvisations based upon compositions; the appreciation of concepts both vocal and instrumental (Sitar and Violin) is expected to be obtained; Karnatik music will also be touched upon particularly in terms of Raags common to Hindustani Music.
 13. HSS F227 (Cross Cultural Skills) - Overview of Intercultural Communication, Intercultural Communication in the Global Workplace, Technology as cultural Power and Its Social Impact, Critical Issues and challenges in Intercultural Communication, Understanding interrelatedness among Religion, Family, Culture, Gender and Race.
 14. HSS F233 (Main Trends in Indian History) - A panoramic view of the development of Indian thought and society; evaluation of Indian life and quality from earliest times through the so-called Hindu, Muslim and British periods; the present day analysis and discussion on the basic features of Indian society, its strength and its weakness; a glimpse into future in terms of the transformation of the Indian society.
 15. HSS F235 (Introductory Philosophy) - An overview of some philosophical theories and issues both from India and the western world; nature and purpose of philosophy; theories of cosmology, metaphysics and epistemology; skepticism and its philosophical value; contemporary philosophy.
 16. HSS F246 (Philosophy of N?g?rjuna) - Abhidharma notions; Rejection of aggregates, elements, and conditioned entity; Desire and the desirous, agent and action, and fire and fuel; Ontological independence, prior entity, initial and

- final limits, intrinsic nature, and compounded phenomena; Early-Buddhist views on suffering, bondage and freedom; Action and consequence; Self and entities within substance metaphysics; Time, origin and dissolution of existents, Tath?gata, assemblage, and conjunction; Four noble truths, nirv??a, and the twelve links of dependent origination.
17. HSS F249 (Politics in India) - Institutional Setting of the State; Transformed structures of political power; Constitutionalism; Parliament; The Party System; Social Cleavages; Identity, Class, Caste and Religion in Politics; Politics and National Identity; Political Processes; Political Parties; Social Justice; Social Movements; Politics and Redistribution
 18. HSS F326 (Humanities and Design) - Ideas and Designs, Thinking about New Designs, Perspectives to Design: Historical, Social, Technical and Creative Dimensions; Engineering Design and Problem Solving; Basic Concepts in Engineering Design; Design Skills, Abstraction, Identification of Patterns in Processes and Products, Application of Systematic Techniques to Problem Solving, Application and Adaptation of tools and technologies to new problems; Core Principles of Design; Elements of Design, Form and Functionality, Central Activity of Engineering Designs; Language and Interface Design, Design Thinking: Influence of Context Vs. Conflict with Context.
 19. HSS F329 (Musicology - An - Introduction) - Music and it's philosophy, history of music, different theories regarding the development of music, music as an exact science (mathematics), musical terminology, musical forms and their background, composers, artistes and their contributions, music of different cultures, music and film world, music therapy. Emphasis would be laid on research and knowledge gained through self-experience.
 20. HSS F330 (Appreciation of Art) - Visual perception and basic techniques used in art, compositional balance, space, movement form, light colour, texture, tensions, expressions lines; mainstreams of art; influence of Indian art abroad; various schools of art-Greecian, Medieval, Christian Renaissance, Baroque and Romanticism, impressionism and post impressionism, fauvism, futurism, expressionism, Dadaism and surrealism, metaphysical art, non-representational and abstract art; analysis of work of art and their evaluation.
 21. HSS F331 (Sankara's Thoughts) - Life and achievements of Adi Sankara; pre-Sankara Vedanta; basic concepts and theories of Advaita: Atman and Jeeva, nature, sources and

validity of knowledge, Brahman and Isvara, Maya and World, Avidya, bondage and liberation; Sankara's contribution to Indian heritage.

22. HSS F333 (Comparative Religion) - A clear objective description of the great religions and their appeal to the spiritual aspirations of the different people of the world; a comparative non-sectarian approach to the understanding of Hinduism, Buddhism, Islam and Christianity; a final summing up bringing the unity of all religions of the world.
23. HSS F334 (Srimad Bhagavad Gita) - The science of Soul; Reincarnation; Karma; Karma Yoga; Transcendental Knowledge; Action in Krishna consciousness; Dhyana Yoga; Knowledge of the Absolute; Attaining the Supreme; The process of Transmigration; the most confidential knowledge; Bhakti Yoga - The process to go back home, back to Godhead.
24. HSS F338 (Comparative Indian Literature) - This course is intended to acquaint the students with literary achievements in Indian Languages and their home-environment and to give integrated view of Indian literature, literary selections from the best writers in the Indian languages will be studied.
25. HSS F340 (Post Colonial Literatures) - Introduction to Post colonial discourses; Post Co-lonial Concepts: Colonization, De-colonization, Linguistic colonization, Politics of representation, Orientalism, Euro-centrism, Hybridization, Select Literary Texts.
26. HSS F344 (Heritage of India) - Foundations of India; India and her ancient culture; life of the people; systems of Indian philosophy; art and archaeology; languages and literature; impact on world civilization; Western influence.
27. HSS F345 (Gandhian Thoughts) - Sources of Gandhian thoughts, metaphysical convictions, ethical principles, ends and means; Gandhi and religion; theory of satyagraha; political thought; economic thought; social reforms; untouchability; Gandhi and Muslims; Gandhi and women; some items of constructive programme, Gandhi and Marx; his nonviolent state; Gandhism after Gandhi.
28. HSS F347 (Introduction to Carnatic Music) - Origins and History of Carnatic music; Basic concepts of svara, svaravalis, svarasthanas, aarohana, avarohana, sthayis; Concept of laya, tala, gati, nadai, different jaati's of taalam; Concept of raaga, Melakarta and janya; Ragalakshanam for some specific raagas; Notation of svaras, taalam; Brief biography of the Trinity, Purandaradasa, and

- other major composers; Concert formats and styles; Vocal or instrumental exercises including varisais, Saptataala alankaaras, Geetams, svarajati, keertanams; Listening practice.
29. HSS F348 (Introduction to Hindustani Music) - Origins of Hindustani music and evolution of the style; Basic concepts of melody and rhythm: Naad, Dhvani, Sangeet, Swar, Laya, Raag, Taal, Shuddh- Vikrit, Chal-Achal, Mandra-Madhya-Taar, Poorvang - Uttarang, Saptak - Ashtak, Sthayee - Antara, Aroha- Avaroha, Raag-Jati, Tal Jati, Alap-Tan, Varn, Alankar, Pakad, Bandish, Vilambit-Madhya-Drut, Matra, Theka, Vibhag, Tali, Khali, Sam. Raaga, Thaata, raag vivara; Compositions: khayals, dhrupad, taraana etc; Vocal or instrumental exercises including ten alankars, Identification of svaras, Aroh, avaroh and pakad of simple raags viz. Yaman, Bhoop, Khamaj, Des, Kafi, Bhimpalasi, Bageshri, Durga; Sargam geets, lakshan geets and madhyalay khayals; Taals including Trital, kaharva, daadra; Listening, identification of raaga from simple phrases.
30. HSS F368 (Asian Cinemas and Cultures) - Introduction; The ideas of Asia; Asia as method; India and her neighbors; BRICS and ASEAN; Look East Policy; Cinema, Culture and Diplomacy; Cinema as Soft Power; Asian diaspora cinema; Indian Diaspora in the East; Cinemas from the Middle East; Iranian Cinema after the Revolution; Cinemas of & on the Israel-Palestine conflict-New Asian Metros; Thai Cinema and the global auteur; South Korean history through their Cinema; Filipino New Wave, Taiwanese New Wave; Chinese Cinemas after the Cultural Revolution; Asianization of the West; India's Cine-Cultural Negotiations with her Asian Neighbors.
31. HSS F369 (Caste and Gender in India) - Concepts - Caste and Gender; Materialist and religious theories; Caste Ideologies; Caste, class and gender intersections, Gender construction within castes; Graded Patriarchies; Colonial impact on caste and gender; Caste and Gender in contemporary period; Oppositional narrative to caste and gender construction; Legal interventions.
32. SANS F111 (Sanskrit) - Simple pieces of Sanskrit prose and poetry to be used for teaching the basic construction of Sanskrit words and sentences. The course will aim at making the student read elementary Sanskrit like a Subhashita Sloka or a Sloka from Ramayana or Mahabharata and be able to understand it with the help of a dictionary.

A classical music group called 'Ragamalika' aims at encouraging

budding talent among the students in music and dance. It also arranges performances by leading artists in the field of classical music and dance. In addition, there is also a BITS Pilani Chapter of SPIC-MACAY which organizes programmes to promote Indian classical music and culture among Youth

20. Focus on Outcome based education (OBE): Focus on Outcome based education (OBE):

BITS Pilani endeavors to address the issue of providing quality education to students by allowing students the flexibility of choosing their own courses in their areas of interest. Students can choose their courses from a pool of disciplines and other elective courses. This is akin to the Choice Based Credit System recommended in the NEP 2020. BITS Pilani has also been advocating the outcome-based education system since its inception which has been reflected in the steady pool of entrepreneurs from this institute.

Since its inception, BITS Pilani has been following the semester system with continuous and internal evaluation. The educational programmes are modular and flexible. Thus, BITS Pilani has been practicing different policies to develop the latest curriculum since long back in the form of offering different specialized, multidisciplinary, and interdisciplinary programmes with broad-based foundation and elective options and provision of Practice School to the students by bringing exposure of the reality of the professional environment and real industrial experience into the educational process in a formal way. Our programmes shape well-rounded individuals with sound knowledge of science and technology, the humanities, languages, social sciences, professional ethics of social engagement, communication, discussion, and need-based specialization.

Some of the salient features of the academic policy followed by BITS Pilani are given below:

Academic freedom

Hands-on learning

Pedagogy and Instructional Delivery

Strong Academic-Industry Connection through Practice School

Innovation, Incubation and Entrepreneurship

Stress on holistic education

Early adaptation of Digital Space for Learning

Promotion of extracurricular activities

At BITS Pilani, Students have not only been prescribed to complete the requirements of a list of Discipline Core Courses and Discipline Electives but also have to take humanities courses and specific science and technology courses. Students also complete the minimum number of courses and units required in the different categories, including Principles of Economics or Principles of Management and Environmental Studies under General Awareness / Professional courses. They have an option of registering for Practice School, which consists of two courses, Practice School I and Practice School II. The curriculum, through Practice School, finds a formal method of bringing the reality of the professional environment into the educational process. A student needs to complete at least 12 elective courses under the categories of Humanities electives, Discipline electives, and Open electives. By judicious choice of these courses, a student can obtain depth in his/her discipline and/or expand his/her horizon to gain exposure to one or more other areas of study. Also, continuous evaluation has been conducted for all the courses offered for a given programme so that students can get the progress of their performances in a transparent manner and achieve success.

Institute has also introduced different "Minor programs" as options for first-degree students to encourage them to add focus to their supplemental learning (outside a major area) and recognize and certify the knowledge obtained in an area that is outside of their major area. At present, twelve minor programs, viz. Minor in Aeronautics, Data Science, English Studies, Entrepreneurship, Film and Media, Finance, Materials Science and Engineering, Philosophy, Economics and Politics (PEP), Physics, Public Policy, Robotics and Automation, and Water and Sanitation have been designed and are being offered at different Campuses.

Students develop concepts and problem solving skills to assess, plan and address different issues related to their study areas by registering for various core courses, discipline electives, open electives and minor programmes. They do even a few courses relating to general Awareness / professional courses to deal with economic, social, ethical, environmental and global impacts. They apply their problem solving skills systematically, design methods

and information and devise management plans to propose and implement creative and sustainable solutions. Also, they collaborate and contribute as an effective team member in diverse, multi-level, multi-disciplinary teams, with commitment to society and participation.

A number of courses have been introduced to integrate the Indian Knowledge system into the existing Program. These courses are available to the students as open electives. In fact, each student is allocated open electives slots of a minimum of five courses which can be satisfied by taking even all such courses among many available courses offered across various departments. Some of the courses are listed below:

1. Science, Technology and Modernity
2. Humanistic Theories of Science and Technology
3. Introduction to Contemporary Arts
4. Society, Business, and Politics
5. Humanities and Design
6. Srimad Bhagavad Gita
7. Gender, Science and Technology
8. Science and Technology Dynamics
9. Science and Technology Development
10. Language and S & T
11. Social Impact of S&T
12. Heritage of India.

Over the years, BITS has provided the highest quality technical education to students from all over India admitted on the basis of merit. Its graduates may be found throughout the world in all areas of engineering, science, and commerce. BITS symbolizes the maturing of Indian technical ability and "can-do" entrepreneurial spirit.

Institution integrates crosscutting issues relevant to

Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum.

Crosscutting issues are the topics that cut across or reach out to most areas of development. These issues centre around inclusive and sustainable efforts to optimally materialise basic needs, work opportunities, ecosystems sustenance, and peaceful and inclusive societies. The development needs to be not only progressive but also long term. Basic public services leading to social security incites nurturing of biodiversity, land, agriculture, technology, ecosystems, education, etc. Capacity building results from workforce nurturing, talent utilisation, etc.

BITS Pilani Curriculum offers a number of courses addressing cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability. Students are compulsorily expected to choose these courses under the pool of general awareness/professional and humanities elective courses. The curricular structure of each first degree programme of BITS Pilani is designed in such a way that every student of BITS Pilani gets good exposure of Professional Ethics, moral values, environment awareness, value education, character building and personality development. By design, beyond core subject domain and in addition to general awareness/professional courses like Principles of Economics, Principles of Management, Environmental Studies and Technical Report Writing courses, every student of First Degree Programmes at BITS Pilani is prescribed to work compulsorily for 3 humanities courses irrespective of their disciplines out of a pool of more than 100 courses. Also every student has flexibility to register humanities and soft skills courses against five open electives which are prescribed to them as part of their degree programmes. Open electives can be taken by the students from the pool of courses offered across various departments.

21.Distance education/online education:

Open Athense Off Campus Access: This is the new platform implemented for the off campus access of the digital library resources, where all the subscribed resources are integrated here and all the users are registered on this platform. The students/Research Scholars and faculty members (including WILP users) can also access all our digital resources remotely using Open Athense platform. This platform also integrates EBSCO Discovery Service (EDS) where a single Sign in will enable the

access to all our resources. It is helping all our users to access resources seamlessly and also our library to improve the digital resources usage monitoring and enhancement activities. The periodic monitoring of usage using the Open Athense reports will help the library to take corrective measures to improve the usage wherever necessary.

Voice Communication - All faculty members have been provided with a laptop and IP phone facility in their chambers. The IP phone facilitates receiving of incoming calls directly on the individual's telephone.

Video Communication - Multi-point video conferencing facility is made available using POLYCOM HDX machine. This facility is utilized for online meetings of research groups in India as well as across the world apart from the administrative meetings.

Virtual Class Room (BITS Connect 2.0) - Virtual classroom is set up at K K BIRLA Goa campus. This facility will enable faculty to deliver lectures to all four BITS campuses simultaneously; alumni and experts to remotely deliver lectures and conduct workshops or panel discussions to multiple BITS campuses simultaneously, with recording and streaming of lectures.

Telepresence Conferencing Room (BITS Connect 2.0) - An 34 seats CISCO Telepresence conference room allows impressive multipoint teleconferencing facility among all the BITS campuses. 180 seat Telepresence classroom is provided for delivering and receiving interactive lectures between all the BITS campuses. These facilities are used for cross campus courses, guest lectures, administrative meetings and online meetings of research groups in India as well as across the world. Licenses for WebEx (web conferencing software) have been provided to all the faculty to facilitate discussions related to course work and research. This facility will also open up avenues of multimedia collaboration with anybody outside the campus

Extended Profile

1. Programme

1.1

39

Number of programmes offered during the year:

File Description	Documents
Data Template	View File
1.2 Number of departments offering academic programmes	13
2.Student	
2.1 Number of students during the year	16344
File Description	Documents
Data Template	View File
2.2 Number of outgoing / final year students during the year:	4058
File Description	Documents
Data Template	View File
2.3 Number of students appeared in the University examination during the year	15072
File Description	Documents
Data Template	View File
2.4 Number of revaluation applications during the year	150
3.Academic	
3.1 Number of courses in all Programmes during the year	22570
File Description	Documents
Data Template	View File
3.2	938

Number of full time teachers during the year						
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td>View File</td> </tr> </tbody> </table>			File Description	Documents	Data Template	View File
File Description	Documents					
Data Template	View File					
3.3		413				
Number of sanctioned posts during the year						
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td>View File</td> </tr> </tbody> </table>			File Description	Documents	Data Template	View File
File Description	Documents					
Data Template	View File					
4.Institution						
4.1		393684				
Number of eligible applications received for admissions to all the Programmes during the year						
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td>View File</td> </tr> </tbody> </table>			File Description	Documents	Data Template	View File
File Description	Documents					
Data Template	View File					
4.2		300				
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year						
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td>View File</td> </tr> </tbody> </table>			File Description	Documents	Data Template	View File
File Description	Documents					
Data Template	View File					
4.3		204				
Total number of classrooms and seminar halls						
4.4		5863				
Total number of computers in the campus for academic purpose						
4.5		177652				
Total expenditure excluding salary during the year (INR in lakhs)						
Part B						
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 University

The goal of BITS Pilani is to develop young people into leaders who will advance the industrial and economic growth of the nation and contribute creatively to society. It is known as a highly innovative and purpose-driven university that frequently sets the tone for realistic improvements in higher education that are appropriate and pertinent for the Indian cultural context. The Institute offers educational opportunities at three levels of study: Integrated First Degree Programmes, Higher Degree Programmes, and Doctoral Programmes. All of the Institute's programmes are created to include as many elements of scientific and applied science as are required for programme graduates to work effectively and efficiently in the modern society. BITS is firmly committed to the idea that higher education must be tailored to (i) address the environment's changing needs and challenges, (ii) encourage people to use their intelligence and develop the skills necessary to deal with challenging, open-ended real-life situations, and (iii) have economic value to society.

In order to encourage first-degree students to give more attention to their supplemental learning and to recognize and certify the information acquired in an area that is outside of their major area, "Minor programmes" are given as possibilities.

File Description	Documents
Upload relevant supporting document	View File

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

26

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

1.1.3 - Total number of courses having focus on employability/ entrepreneurship/ skill development offered by the University during the year**1.1.3.1 - Number of courses having focus on employability/ entrepreneurship/ skill**

development during the year**964**

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

1.2 - Academic Flexibility**1.2.1 - Number of new courses introduced of the total number of courses across all programs offered during the year****67**

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

1.2.2 - Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented during the year**49**

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

Discipline Core Courses and Discipline Electives are required to be completed by all students admitted to BITS Pilani. Students must also study humanities in addition to some science and technology courses. The minimal number of courses and units needed in each category, including Principles of Economics, Principles of Management, and Environmental Studies under the heading of General Awareness/Professional Courses, should also be completed by students. The Practice School option, which comprises of the two courses, Practice School I and Practice School II, is available

for all of the Integrated First Degree degrees mentioned above. A student attends Practice School I, which lasts for two months, in the summer after their second year, and Practice School II, which lasts for five and a half months, in their final year. The curriculum finds a formal way, through Practice School, to include the reality of the working world into the educational process. Professional Ethics, Gender, Human Values, Environment and Sustainability into the curriculum are explained in supporting document.

File Description	Documents
Upload relevant supporting document	View File

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

58

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

1.3.3 - Total number of students enrolled in the courses under 1.3.2 above

1.3.3.1 - Number of students enrolled in value-added courses imparting transferable and life skills offered during the year

14533

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

1.3.4 - Number of students undertaking field projects / research projects / internships during the year

10091

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
1.4 - Feedback System	
1.4.1 - Structured feedback for design and review of syllabus – semester wise / is received from Students Teachers Employers Alumni	<ul style="list-style-type: none"> • All 4 of the above
File Description	Documents
Upload relevant supporting document	View File
1.4.2 - Feedback processes of the institution may be classified as follows	<ul style="list-style-type: none"> • Feedback collected, analysed and action has been taken
File Description	Documents
Upload relevant supporting document	View File
TEACHING-LEARNING AND EVALUATION	
2.1 - Student Enrollment and Profile	
2.1.1 - Demand Ratio	
2.1.1.1 - Number of seats available during the year	
4230	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
2.1.2 - Total number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the year (Excluding Supernumerary Seats)	
2.1.2.1 - Number of actual students admitted from the reserved categories during the year	
300	

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

Summary of existing best practices for slow learners and advanced learners evolved at BITS Pilani

Slow Learners

- Continuous mentorship by "Academic Counselling Cell" and "Academic Counselling Board" for all such students. Also, engagement of professional counsellors at the Campus to counsel the students from time to time (e.g., Mpower and other professional counsellors visit at the Campus regularly, etc.)
- Organising special/extra classes, tutorials in consultation with the respective Instructor-in-Charge/ Instructors of identified courses.
- Offering of required courses in Summer Terms
- Soft Skills Training by Academic Counselling Cell
- Options available to register for less number of units and complete the program in their own pace.

Advanced Learners

- Allotment of Dual Degree Programs in the most sought after programmes through a competitive process that is based on the performance in the first year.
- Allotment of minor programmes in emerging areas through a competitive process.
- Transfers from First Degree to another First Degree/Higher Degree/PhD Degree.
- Though Research/Project Based Courses are available to all students, they get an opportunity to carry out their project type courses in their chosen fields in advance.
- Options available to register for exceeding number of units to accelerate the completion of degree programme/specialized courses.

File Description	Documents
Upload relevant supporting document	View File
Link For Additional Information	https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AOAR_21-22/Criteria-2/2.2.1/MainFileDescription_221.pdf

2.2.2 - Student - Full time teacher ratio during the year

Number of Students	Number of Teachers
16344	938

File Description	Documents
Upload relevant supporting document	View File

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

The goal of BITS Pilani is to develop young people into leaders who will advance the industrial and economic growth of the nation and contribute creatively to society. It is known as a highly innovative and purpose-driven university that frequently sets the tone for realistic improvements in higher education that are appropriate and pertinent for the Indian cultural context.

Since its start, BITS Pilani has used a semester structure with ongoing internal evaluation. Modular and adaptable instructional curricula are available. The Practice School course at BITS Pilani has created intentional connections with many companies. The Institute has developed a research strategy that connects research to societal demands and the advancement of the country. It has created and adopted a special academic administration framework that enables and supports all of its advances.

The Institute offers educational opportunities at three levels of study: Integrated First Degree Programmes, Higher Degree Programmes, and Doctoral Programmes. All of the Institute's programmes are created to include as many elements of scientific and applied science as are required for programme graduates to work effectively and efficiently in the modern society. Regardless

of the clientele who are required to take the courses, all programmes have some basic similarities, and the common courses are always run together.

File Description	Documents
Upload relevant supporting document	View File

2.3.2 - Teachers use ICT enabled tools including online resources for effective teaching and learning processes during the year

For the use of ICT tools in all of its academic activities across all of its campuses, BITS Pilani ensures the best possible teaching and learning environment. Knowing the value of information and communication technology (ICT), professors frequently incorporate technology into their traditional teaching methods to keep their students interested and motivated to study. In addition to the chalk-and-talk method of instruction, the faculty members are exposing the students to advanced knowledge and practical learning through the use of IT enabled learning tools like PPT, Video clippings, Simulations, Live labs, Audio system, online sources, and Impartus (virtual classroom) platforms.

Every classroom has an LCD, an OHP, and Computers. majority of the teachers employ interactive teaching techniques. With regard to research paper presentations, seminars, debates, group discussions, assignments, quizzes, examinations, vivas, and laboratory work, the focus is mostly on classroom engagement. To encourage autonomous learning, specialized computer labs with an internet connection have been made available. Individual laptops and mobile devices have access to Wi-Fi for internet access.

File Description	Documents
Upload relevant supporting document	View File

2.3.3 - Ratio of students to mentor for academic and other related issues during the year

2.3.3.1 - Number of mentors

187

File Description	Documents
Upload relevant supporting document	View File

2.4 - Teacher Profile and Quality	
2.4.1 - Total Number of full time teachers against sanctioned posts during the year	
938	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
2.4.2 - Total Number of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D’Lit. during the year	
872	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
2.4.3 - Total teaching experience of full time teachers in the same institution during the year	
2.4.3.1 - Total experience of full-time teachers	
8684	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
2.4.4 - Total number of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the year	
35	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
2.5 - Evaluation Process and Reforms	

2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

28

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 year

28

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

2.5.2 - Total number of student complaints/grievances about evaluation against total number appeared in the examinations during the year

150

File Description	Documents
Upload relevant supporting document	View File

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

A fully ICT-enabled institution, Birla Institute of Technology and Science, Pilani (BITS Pilani) uses ERP to manage all aspects of student registration, class scheduling, and examination procedures.

Through the integration of IT into all the procedures and operations of the examination system, the institute has been continuously reforming its examination process. The continual internal assessment modalities and components have also undergone the modifications. ERP and Proctored Based software have entirely automated the exam process.

The campus' computing and networking infrastructure is hosted and managed by the IPC (Information Processing Centre), BITS Pilani's main computing facility. The infrastructure consists of email, local and remote networking, and computer services. IPC is open every day of the year from early morning to late. Some specialized labs and centers provide 24-hour access to computers.

The Centre for Software Development (CSD) and the Centre for Educational Technology (CET) are both included in the SDET Unit. The unit's mandate calls for it to include in its scope of work the identification, establishment, deployment, and evolution of suitable educational technology to support efficient resource utilization of the expertise.

File Description	Documents
Upload relevant supporting document	View File

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

A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

2.6 - Student Performance and Learning Outcomes

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

Since its start, BITS Pilani has used a semester structure with ongoing internal evaluation. Modular and adaptable instructional curricula are available. The Practice School course at BITS Pilani has created intentional connections with many companies. The Institute has developed a research strategy that connects research to societal demands and the advancement of the country. It has created and adopted a special academic administration framework that enables and supports all of its advances.

Regardless of the clientele who are required to take the courses, all programmes have some basic similarities, and the common courses are always run together.

Similar to this, regardless of the final degree a student qualifies for, the significant amount of this similarity across all students builds an educational foundation that makes it simple for students graduating with various degrees to connect professionally, communicate, and engage in group activities. When

students work as interns at the Practice School stations or as team members on mission-driven, time-bound research and development projects, this commonality among students who graduate with various degrees is further welded in to a stronger professional bond. Multiple point entries are possible thanks to the numerous structural flexibilities, which also allow the system to meet a variety of students' valid educational and operational needs.

File Description	Documents
Upload relevant supporting document	View File

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

Attainment of the Course Outcomes

At BITS Pilani, the effectiveness of the teaching, learning, and evaluation procedures is examined together with the course outcomes. These procedures at BITS Pilani are regarded as one cohesive whole. While the teacher is free to choose his or her own teaching methods, it is the teacher's duty to continuously evaluate the students, which should lead to the awarding of a set of qualitative letters (or non-letter) grades for each course.

Attainment of the Programme Specific Outcomes

The results of all the courses a student has taken within a certain programme are added together to determine the outcomes specific to that programme. First, a student's performance in a course is evaluated, and at the end of the semester, students in that subject are assigned qualitative letter grades from A to E.

Attainment of the Programme Outcomes

All First Degree, Higher Degree, and Ph.D. programmes at the Institute include as their overall programme outcomes the contribution of students to the body of knowledge through discovery, innovation, problem-solving, establishment of new perspectives, etc. The number of students who successfully finished their FD, HD, or PhD within the assessment period serves as proof that the program's objectives were met. Programme outcomes at the First Degree and Higher Degree levels are determined by how many students enroll in reputable, world-class institutions of higher learning and how well they are placed in

businesses and other organizations.

File Description	Documents
Upload relevant supporting document	View File

2.6.3 - Number of students passed during the year

2.6.3.1 - Total number of final year students who passed the university examination during the year

4210

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a web link)

https://docs.google.com/forms/d/1BYwa_BHmslCMSOX0kPb6T--Co8FBimO_mv8nt-sBoEo/closedform?pli=1

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Promotion of Research and Facilities

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

Any higher education system must include research as an inherent and crucial component. Research is actively encouraged at BITS Pilani among both faculty and students. The Institute accords adequate emphasis and support to applied research in addition to basic research, which forms the basis of all applied research.

BITS's research depends on the pool of highly motivated intellectual talent that is accessible among its employees and students. As part of their educational plan, students conduct research projects. Teachers do research as a crucial component of their duties because it allows them to both develop new knowledge and assimilate and distribute existing knowledge. Additionally, BITS has developed creative plans to enable professionals in general to do research at their places of employment while also pursuing the Institute's Ph.D. degree. Faculty members at BITS

Pilani are encouraged to present papers at conferences and publish their research in reputable publications. Support is provided so that participants can attend national and international conferences and connect with professionals from India and around the world. If the study is likely to result in a commercially viable product or process, the Institute recently took efforts to support professors in filing for patents.

File Description	Documents
Upload relevant supporting document	View File

3.1.2 - The institution provides seed money to its teachers for research (amount INR in Lakhs)

266.80

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.1.3 - Number of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the year

14

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.1.4 - Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the year

205

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.1.5 - Institution has the following facilities to support research Central Instrumentation

A. Any 4 or more of the above

Centre Animal House/Green House Museum Media laboratory/Studios Business Lab Research/Statistical Databases Moot court Theatre Art Gallery	
File Description	Documents
Upload relevant supporting document	View File
3.1.6 - Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies during the year	
10	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.2 - Resource Mobilization for Research	
3.2.1 - Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the year (INR in Lakhs)	
891.25	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.2.2 - Grants for research projects sponsored by the government agencies during the year (INR in Lakhs)	
2185.40	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.2.3 - Number of research projects per teacher funded by government and non-government agencies during the year	

128

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.3 - Innovation Ecosystem

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

Centre for Innovation, Incubation & Entrepreneurship (CIIE)

In order to develop the on-campus ecosystem and encourage innovation, entrepreneurship, and incubation, BITS Pilani's Centre for Innovation, Incubation, and Entrepreneurship (CIIE) works continually across all four of its campuses, taking care of all associated academic and extracurricular activities. The CIIE's mandate includes promoting alumni and industry collaboration for various entrepreneurial activities, facilitating technology transfer and commercialization, carrying out patent filings, serving as the BITS's intellectual property custodian, and supporting entrepreneurial activities. It also includes interacting with technology business incubators on all campuses.

Pilani Innovation and Entrepreneurship Development Society

The Pilani Innovation and Entrepreneurship Development Society (PIEDS), which was founded in 2013 at the BITS Pilani - Pilani Campus, places a strong emphasis on the development of new technology- and innovation-based businesses. The society engages in a number of initiatives to support and foster technology-based innovation, incubation, and entrepreneurial growth. The society's main goals are to support startup teams in developing technologies and innovations that address market and societal needs, to encourage students, faculty, and community members to adopt an entrepreneurial mindset, and to offer mentoring, consulting, networking, and funding services to aspiring innovators and business owners.

File Description	Documents
Upload relevant supporting document	View File

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

63

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

63

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.3.3 - Number of awards / recognitions received for research/innovations by the institution/teachers/research scholars/students during the year**3.3.3.1 - Total number of awards / recognitions received for research/innovations won by institution/teachers/research scholars/students year wise during the year**

75

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.4 - Research Publications and Awards**3.4.1 - The institution ensures implementation of its stated Code of Ethics for research****3.4.1.1 - The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following**

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of institutional Ethics committees (Animal, chemical, bio-ethics etc)**
- 3. Plagiarism check**
- 4. Research Advisory Committee**

A. All of the above

File Description	Documents
Upload relevant supporting document	View File
3.4.2 - The institution provides incentives to teachers who receive state, national and international recognitions/awards Commendation and monetary incentive at a University function Commendation and medal at a University function Certificate of honor Announcement in the Newsletter / website	A. All of the above
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.4.3 - Number of Patents published/awarded during the year	
3.4.3.1 - Total number of Patents published/awarded year wise during the year	
41	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.4.4 - Number of Ph.D's awarded per teacher during the year	
3.4.4.1 - How many Ph.D's are awarded during the year	
167	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
3.4.5 - Number of research papers per teacher in the Journals notified on UGC website during the year	
1721	

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.4.6 - Number of books and chapters in edited volumes published per teacher during the year

3.4.6.1 - Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings during the year

882

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.4.7 - E-content is developed by teachers For e-PG-Pathshala For CEC (Under Graduate) For SWAYAM For other MOOCs platform For NPTEL/NMEICT/any other Government Initiatives For Institutional LMS

A. Any 5 or all of the above

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.4.8 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

Scopus	Web of Science
12852	6841

File Description	Documents
Any additional information	View File
Bibliometrics of the publications during the year	View File

3.4.9 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

Scopus	Web of Science
3195	2229

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View File
Any additional information	No File Uploaded

3.5 - Consultancy

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

BITS Pilani is continuously thriving to enhance its research competitiveness by securing the external research funding in competitive mode. Despite the ongoing pandemic, 157 external grants worth Rs. 61.82 cr have been received so far. The 5-year average annual grant increased more than 400%, FY21-22 grants include 09 international projects worth Rs. 4.16 cr, 33 Industry and consultancy projects worth Rs. 4.74 cr, Alumni research support of Rs. 4.79 cr and CSR Funding of Rs. 0.97 Cr. In addition to the new projects sanctioned in FY21-22, 416 externally funded projects worth Rs. 265.22 Cr were ongoing. During this period 8 infrastructure grants (DST-FIST) worth Rs. 7.542 cr were implemented.

GUIDELINES FOR CONSULTANCY AND TESTING PROJECTS

Consultancy Projects

The Institute has expertise in various research areas to provide knowledge and intellectual inputs which are of interest to the industry and other organisations. Following guidelines will be used for engaging in any

consultancy job:

1. A consultancy project/task/work is one where faculty and research staff provide knowledge and intellectual inputs to industry or other organisations (within India and abroad), primarily for their purposes.
2. All payments for consultancy work must come in the name of

Birla Institute of Technology & Science, Pilani payable at respective campus. The Institute will then do the needful for complying with statutory laws.

File Description	Documents
Upload relevant supporting document	View File

3.5.2 - Revenue generated from consultancy and corporate training during the year (INR in Lakhs)

3.5.2.1 - Total amount generated from consultancy and corporate training during the year (INR in lakhs)

1090.44

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.6 - Extension Activities

3.6.1 - Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the year

Our volunteers engaged in yoga on International Yoga Day with the utmost fervour and passion. The world gets back on track in 2022 after a difficult few of years. In order to record stories, NSS BITS Pilani organized Lend Your Voice (LYV) during Apogee 22. Our first tale recorder, the honourable chief guest Nagin Cox (a spacecraft and operations engineer at NASA and the tactical mission lead for the Curiosity and Perseverance Rovers), gave us a good start on reaching 700+ recorded audiobooks. This audiobook collection will be delivered to the Delhi-based Blind Relief Association audiobook library.

Coding classes at "Adarsh Shikshan Samuh" were held on Computer Concepts (CCC), coupled with Naari Computer Shiksha (NCS) at PARC and Government School at Government School, Hanumantpura, as part of our commitment to a more technologically informed and conscious populace.

On February 21, 2022, NSS organized a cancer awareness session in partnership with Sanjeevani, a nonprofit. Award-winning non-profit organization Sanjeevani, a pioneer in "Comprehensive Cancer Care,"

works for the prevention, early detection, counselling, and rehabilitation of cancer and cancer sufferers.

File Description	Documents
Upload relevant supporting document	View File

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

3.6.2.1 - Total number of awards and recognition received for extension activities from Government / Government recognised bodies during the year

4

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

20

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.6.4 - Total number of students participating in extension activities listed at 3.6.3 above during the year

1650

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

3.7 - Collaboration

3.7.1 - Number of collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year

3.7.1.1 - Total number of Collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year

6604

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

4

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

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

BITS Pilani has State-of-the-Art facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc. Each Campus has one telepresence room used for multi campuses lectures. Classrooms are centrally air conditioned and are equipped with modern audio/video facilities and are well connected to the WiFi and LAN.

Classrooms: BITS Pilani, Pilani campus has 50 classrooms, Six classrooms are in theatre settings, out of which four rooms have a capacity of 250, and two have a capacity of 400. BITS Pilani, Goa Campus has 39 classrooms, out of which four rooms have a capacity of 400, and five have a capacity of 150. BITS PILANI HYDERABAD CAMPUS has 55 classrooms. 6 classrooms are in theatre setting,

with seating capacity between 200 to 400. BITS Pilani, Dubai campus has 39 classrooms with an average seating capacity of 50. Library: The BITS Pilani Pilani campus library is housed in a state-of-the-art building, covering about 65000 sq. ft area, and is equipped with a seating capacity for 950 students. BITS Goa Library has room for up to 1,000 students, offers 738 open access study places and 246 open-access IT work stations. The library in the Hyderabad Campus is spread over 45,000 sq. ft, two floors and a seating capacity of over 400. The library in the Dubai Campus is a two-storied building having a seating capacity of over 500. All campus library collections contain around 2,000 current journal titles, over 20,000 electronic resources.

File Description	Documents
Upload relevant supporting document	View File

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

BITS Pilani boasts of adequate facilities for sports and cultural activities. All campuses of BITS Pilani have a Student Activity Centre (SAC).

Auditorium: The main auditorium BITS Pilani Pilani Campus is one of the largest auditoriums in India that covers 1431 Sqm area with 1612 sitting capacity. Centrally cooled, it complies with all safety measures and offers facilities such as toilets, back stage, acoustic properties, cafeteria and projector room facility too that facilitate students, Faculty and Staff to watch movies on a large screen. BITS Pilani Goa campus has a similar auditorium with 1000+ seating capacity. Hyderabad campus boasts of a larger auditorium with 2500 seating capacity. Dubai campus has a centrally air-conditioned auditorium covering 950 Sqm area with a seating capacity of 900. Apart from these facilities, at th Pilani campus, NAB Rotunda was built. This is a circular Rotunda of 4300 Sqm in New Academic Building with a circular stage at its center.

Built in front of the clock tower in 4300 Sqm area, it serves as an amphitheater stage and monumental beauty. Since, it is like an Open to sky Auditorium, a number of events happen here during the fests. SAC: At the Pilani campus, SAC is a building that consists all the indoor sports facility, Gym & Health club, a semi-circular amphitheater in 25370 Square feet area with a stage built to facilitate students in their practice/performance of extracurricular activities.

File Description	Documents
Upload relevant supporting document	View File

4.1.3 - Availability of general campus facilities and overall ambience

BITS Pilani, a deemed university, has constantly been evolving as an Institute of Eminence and upgrading its infrastructure. A sizable part of its budget is allocated to improve and maintain its physical and academic facilities. To meet the growing demands of technically skilled professionals in the modern competitive world, the Institute ensures that its students and faculty are facilitated with computers and Laptops with Internet facility at a high speed leased line connection of 100 Mbps. CCTV cameras and projectors are also being used effectively in all campuses of the institute. The academic buildings house fully air-conditioned faculty & staff offices, labs, classrooms, library, etc. The central AC plant of 650 TR capacity, VRF type AC of 1000 HP capacity, and split AC's of around 500 TR capacity, are installed at different locations in the main building. Different backup generators with the capacity of 3777 KVA are installed at various locations like academic buildings, essential services, etc. for supporting 24X7 uninterrupted power supply to support research, lab experiments, etc. Nearly forty solar powered street lights are installed in the campus, which is estimated to save around 2,600 kW of electricity annually. These facilities are consistent across all campuses.

File Description	Documents
Upload relevant supporting document	View File

4.1.4 - Total expenditure excluding salary for infrastructure augmentation during the year (INR in Lakhs)

41,072

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

4.2 - Library as a Learning Resource

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

digitisation facility

Pilani Campus: In 2005, the library at Pilani Campus started automating its operations using LibSys ILMS. In 2014, KOHA ILMS, an open-source alternative, took its place. Since that time, the complete automation of all library operations, including acquisition, cataloguing, circulation, and serial control services, has been achieved. To search through its whole collection of print and electronic resources, the library also makes use of a federated search tool called OneSearch. It has a patron traffic counter to track actual foot traffic and a DSpace-based digital repository to store academic articles, theses, and dissertations. The library offers services like self-checkout, renewals, interlibrary loans, user awareness programmes, and reference. The library contains areas for invention and ideation, brainstorming, and makerspaces featuring 3D printers, HPCs, and IOTs. The library takes part in INFLIBNET initiatives like ShodhShuddi, which checks for plagiarism, ShodhGanga ETD, which allows you to upload your award-winning thesis, INDCAT, the Indian Research Network Information System (IRINS), which gives you access to 11 e-databases as a CFTI, and Eshodh Sindhu consortia, which allows you to subscribe to databases at ESS-negotiated prices.

Goa Campus: The library at the Goa Campus started automating its operations as soon as the campus opened in 2004. In order to manage libraries, it first used the for-profit LibSys software until switching to the free and open-source KOHA Library Management System in 2012.

File Description	Documents
Upload relevant supporting document	View File

4.2.2 - Institution has subscription for e-Library resources Library has regular subscription for the following: e – journals e-books e-ShodhSindhu Shodhganga Databases

A. Any 4 or all of the above

File Description	Documents
Upload relevant supporting document	View File

4.2.3 - Annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the year (INR in Lakhs)

12825491.00

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

4.2.4 - Number of usage of library by teachers and students per day (foot falls and login data for online access)

5020

File Description	Documents
Upload relevant supporting document	View File

4.3 - IT Infrastructure

4.3.1 - Number of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities during the year

204

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

Each of BITS Pilani's four campuses has an information processing centre (IPC) or computer centre (CC), which offers a range of amenities to support and advance the university's educational vision and purpose. Each campus's computing and networking infrastructure is hosted and controlled by the IPC. The infrastructure consists of computer services, local and remote connectivity, including email. High-speed wired and wireless networks are available on every campus, enabling safe access to the internet and intranet. The entire campus community has access to internet and intranet services through the university-wide network. With the use of optical fibre leased lines, each campus has a number of internet service providers (ISPs). On campus, there are wireless access points that make wireless network connections easier. All campuses employ firewall authentication

for protected access and provide protection against worms, viruses, malware, data loss, and identity theft in order to increase security and fairness. Concurrent device allowances vary from university to campus, and each user has a UTM account. All schools have a campus-wide security system that uses CCTV cameras placed at building entrances, exits and hallways. To meet the demand for IT resources from its administration, teachers, and students, the IPC at each campus examines the needs for new IT facilities and implements expansion of existing IT resources. Budgets are set aside for expanding and maintaining current IT resources while also keeping an eye out for emerging technologies that can improve network management, security, and availability.

File Description	Documents
Upload relevant supporting document	View File

4.3.3 - Student - Computer ratio during the year

Number of students	Number of Computers available to students for academic purposes
16346	5863

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

- ?1 GBPS

File Description	Documents
Upload relevant supporting document	View File

4.3.5 - Institution has the following Facilities for e-content development Media centre Audio visual centre Lecture Capturing System(LCS) Mixing equipment's and softwares for editing

A. All of the above

File Description	Documents
Upload relevant supporting document	View File
Upload the data template	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Total expenditure incurred on maintenance of physical facilities and academic support

facilities excluding salary component during the year

1943

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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.

Procedures for maintaining and making use of physical, academic, and support facilities have been established by BITS Pilani, Goa, Hyderabad, and Dubai. The administration, admission, student welfare division, estate management unit, placement unit, security, medical, and academic sections are just a few of the separate units that each school has to maintain its infrastructure. To ensure adequate record-keeping and services, these divisions have competent people, including in-house technical teams, outsourced technical teams, and exclusive staff.

The institutions offer a number of amenities to support dining, entertainment, and health services. In addition to tracks for athletics and paths for the elderly, they provide facilities for badminton, cricket, table tennis, squash, lawn tennis, hockey, football, and basketball. Children's parks also contain gyms and equipment for the elderly, and the main theatre has a unique setup for showing recently released films on a 35 mm screen with the projector.

Numerous food establishments and snack carts, including Connaught Place, Amul, Nescafé, Vijaya Vahini, C3, Yummpys, Thick Shake, Institute Canteen, and all-night canteen, can be found on the campuses of the colleges.

BITS Pilani features an estate management unit portal and an iCMS-IPC complaint management system to handle issues with computers, labs, dorms, messes, and sports facilities. Additionally, it features an AUGS-AGSR division portal that makes booking classrooms easier.

File Description	Documents
Upload relevant supporting document	View File

STUDENT SUPPORT AND PROGRESSION	
5.1 - Student Support	
5.1.1 - Total number of students benefited by scholarships and free ships provided by the institution, Government and non-government agencies (NGOs) during the year (other than the students receiving scholarships under the government schemes for reserved categories)	
9918	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.1.2 - Total number of students benefited by career counselling and guidance for competitive examinations offered by the Institution during the year	
1185	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.1.3 - Following Capacity development and skills enhancement initiatives are taken by the institution Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) Awareness of trends in technology	A. All of the above
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.1.4 - The Institution adopts the following for redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organisation wide awareness and undertakings on policies with zero tolerance Mechanisms for	• All of the above

submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees	
File Description	Documents
Upload relevant supporting document	View File
5.2 - Student Progression	
5.2.1 - Number of students qualifying in state/ national/ international level examinations during the year (eg:NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations)	
5.2.1.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year	
86	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.2.2 - Total number of placement of outgoing students during the year	
3418	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.2.3 - Number of recently graduated students who have progressed to higher education (previous graduating batch) during the year	
191	
File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File
5.3 - Student Participation and Activities	

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

91

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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

The Student Council is a body consisting of students elected from the General Body (Students) by the members of the General Body and represents the entire student community at the management/administrative level of the Institute. Separate Student Councils exist across all 4 campuses of BITS Pilani. It comprises the President, Vice-president, Sports Secretary, General Secretary, Treasurer and representatives of the different organs including various clubs for different activities.

The student body for Academic Activities collects feedback from the students regarding the academic facilities and communicates the same to the administration for improvements in the academic infrastructure/curriculum. They also organize science exhibitions and book fairs to improve the academic environment of the Institute. They have also started a Coursera learning program for all BPHC students, through which students can take up any one course and get a certification for it for free. This initiative helps students take up a course of their interest along with academics and get a certificate to show for their learning and effort.

The students body worked towards the successful reopening of the campus post the 2nd wave of COVID. Aiding the administration in setting up guidelines and SOPs for smooth reopening was also handled. Multiple vaccination camps were conducted by the Students' Union to ensure all students were vaccinated to prevent the further spread of the Coronavirus.

File Description	Documents
Upload relevant supporting document	View File

5.3.3 - Number of sports and cultural events / competitions organised by the institution during the year

38

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

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 during the year

Through its on-campus (66,000+) and work-integrated learning (97,000+) programmes, which are available at the undergraduate, post-graduate, and PhD levels, BITS Pilani has more than 160,000 alumni. The BITS Pilani alumni organisation (BITSAA international and BITSAA India) serves as a conduit between the institute and its alumni across the globe and promotes alumni engagement, fundraising, and connection.

BITS graduates have excelled in their careers as notable business executives (7400+ CEOs), trailblazing startup founders (6300+, including those of 9 unicorns), eminent academicians (3300+ VC's, Directors, Deans, and HOD's in India and abroad), professionals in the Indian Civil Services and Indian Defence Services (600+), and inspirational leaders in other spheres of life, such as actors, writers, filmmakers, and social activists. Every year, BITS Pilani presents Distinguished Alumnus Awards to former students who have excelled in a variety of sectors, including academic research, corporate leadership, and entrepreneurship/public life/philanthropy.

Since 2011, BITSAA International has hosted the BITSAA Global Meet, which brings together alumni from all around the world to network and give back to their alma mater. Similar to this, BITSian Day is celebrated annually on the first Friday in August all around the world to honour BITSians' achievements and their pride in being BITSians.

File Description	Documents
Upload relevant supporting document	View File

5.4.2 - Alumni contribution during the year (INR in Lakhs)	A. ? 5Lakhs
File Description	Documents
Upload relevant supporting document	View File
GOVERNANCE, LEADERSHIP AND MANAGEMENT	
6.1 - Institutional Vision and Leadership	
6.1.1 - The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance	
<p>BITS Vision</p> <p>Our commitment to transparency and stress on equal opportunity has been a key contributing factor behind our emergence as an institute of national repute, our rigorous intake process rewards only merit and ensures that only truly motivated students join us. Our curriculum is continuously being innovated and refreshed to reflect the latest developments in technology and trends within industry. Pure academics are supplemented by pervasive industry engagement and every student is exposed to practical applications of classroom knowledge under a structured semester-long engagement programme.</p> <p>BITS Mission</p> <p>BITS 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.</p> <p>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.</p>	
File Description	Documents
Upload relevant supporting document	View File

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

The governance and administrative structure of BITS Pilani has been created to reflect the fact that it is an institute with multiple campuses. The Institute is administered by the Vice Chancellor, and each Campus is overseen by a Director. There are eight Institute-wide Deans who work with the Directors and report to the Vice Chancellor. They are responsible for the following functions: Faculty Affairs, Academic - Undergraduate Studies, Academic - Graduate Studies and Research, Sponsored Research and Consultancy, Practice School, Work Integrated Learning Programmes, Alumni Relations and International Programmes & Collaboration.

While on the one hand conventional, the function distribution also reflects the areas of strategic importance. As a result, two deans are in charge of the industry interface, two deans are in charge of research, and one dean is in charge of alumni relations. There are Associate Deans for each position on each campus, who collaborate with the corresponding Deans and the Campus Director. To guarantee that the Institute progressively moves towards its aim of being a research-led teaching institute with widespread industry interaction, teams of faculty members have developed strategic forward plans for each of these functions, or combinations of these.

File Description	Documents
Upload relevant supporting document	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic plan is effectively deployed

Research Outcomes::

Beginning in 2011, the Institute implemented a number of changes to enhance both the quantity and quality of research outcomes. These included domain-specific seed funds, a faculty contingency allowance, a research initiation award, competitive research grants both during and after recruitment, and research initiation grants. In addition, the Institute started guaranteeing that every faculty member had access to at least one Institute-funded research fellow and funding a certain number of research fellowships each year for a duration of five years for each fellow. The illustrations below (WOS: Web of Science) show the

results of the academic members' efforts with the aforementioned help. Other actions, like the establishment of a Research Support Office and the hiring of a Technology Transfer Officer, have been put in place, and the results will be apparent in due time, even as the advantages from these measures are built upon and expanded.

Alumni Engagement:

BITS Pilani has around 175,000 alumni, of which 70,000 graduated from its campus-based programmes and more than 105,000 from its programmes for working professionals. BITSAA International serves as the umbrella organization for the more than 40 Alumni Association chapters that exist across the world. The Institute has benefited much from the alumni, who have been involved for a while.

File Description	Documents
Upload relevant supporting document	View File

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

The Vidya Vihar campus in Pilani, Rajasthan, is where BITS Pilani is situated. In addition to Pilani, it also has campuses in Goa, Hyderabad, Mumbai, and Dubai, which is an offshore campus. The Institute's organizational structure (Organogram attached) is well-designed and functional. The Director oversees the daily academic and administrative operations of each Campus while the Vice-Chancellor serves as the Institute's executive leader.

Governing Bodies

The Institute's organizational hierarchy, structure, policies, and procedures are all well defined in order to enable decision-making processes that are in line with its objectives. The Memorandum of Association (MoA) & Rules and Regulations, which provide a policy framework and direction for the operation of the Institute and the accomplishment of its goals, govern BITS and its campuses. The MoA gives the following Institute authorities the following authority:

- (a) The General Body
- (b) The Board of Governors
- (c) The Finance Committee

(d)The Senate**Organizational Structure**

(a) **Students:** Over the years, BITS has offered students from all over India accepted only on the basis of merit the best technical education available.

(a) **Employees:** The MoA contains a comprehensive list of service regulations for employees. Specific selection panels that ensure fair and transparent decisions based on qualifications and merit are used to make appointments.

(c) **Finance and Accounting:** As per approved budgetary sanctions, funds are timely disbursed for a variety of operational and capital expenditures.

File Description	Documents
Upload relevant supporting document	View File

6.2.3 - Institution Implements e-governance in its areas of operations**6.2.3.1 - e-governance is implemented covering following areas of operation**

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

A. All of the above

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.3 - Faculty Empowerment Strategies

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

The Faculty Performance Management System (PMS) has been created to promote regular, fruitful discussions regarding performance and advancement during the assessment period between the faculty member and his or her HoD. The PMS, which was created to support faculty members' professional development, cycles through the

following main activities:

Key Activity (KA)

1 Goal Setting for the Academic Year (AY) based on Performance Expectation Grid

2 Self-appraisal for the previous year(s)

3 Annual Performance Review (APR) with the HoD

4 Review by Cross Campus Faculty Appraisal Committee (CCFAC)

5 Review by Leadership and Release of Appraisals

Performance Expectation Grid

Each faculty member is accountable for their performance in the three categories of teaching, research, and institutional contribution. The Assistant Professor Grade I, Associate Professor, and Professor jobs all have different and distinct performance expectation grids in these three categories.
Promotional Avenues for Faculty

At the levels of Assistant Professor, Associate Professor, and Professor, tenured faculty members (regularised as of a specific date) offer details on their contributions to teaching, research, industry engagement, and other institutional contributions.

Performance Appraisal & Promotional Avenues for Non-Teaching Staff (NTS):

With 21 levels of NTS certifications available at BITS Pilani, there are plenty of paths and chances for both vertical and lateral career progression.

File Description	Documents
Upload relevant supporting document	View File

6.3.2 - Total number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

642

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.3.3 - Number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the year

17

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.3.4 - Total number of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the year(Professional Development Programmes, Orientation / Induction Programmes Refresher Course, Short Term Course)

95

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.4 - Financial Management and Resource Mobilization

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

Efficiency, transparency, and adaptability are fostered by the Institute Financial Management's framework, which incorporates the best business practices from the top corporations. Top experts who are trained Chartered Accountants or professionals with equivalent qualifications lead the accounts and finance team at various levels.

The institute creates a 10-year strategy plan with an emphasis on expanding infrastructure, research, teaching, entrepreneurship, and other areas as well as launching new programmes and off-campus facilities. A financial plan is created based on main priority areas, and it includes several sources of funding and a strategy for using them. As a matter of policy, the institute makes sure that the anticipated spending is in line with the overall strategy

for raising funds. The strategic plan is regularly examined and changed in light of real circumstances.

In addition, a comprehensive budget is created at the start of the year that details both the operating and capital expenditure plans. Planning for the mobilization of finances is done in consideration of budget expenditures. Student fees, research grants from the government and business, alumni contributions, corporate social responsibility funds, etc. are some of the funding sources. The use of finances is meticulously planned, with money set aside for wages, scholarships, research, and other significant institution functions. The Annual Budget is submitted for approval to the Board of Governors after being reviewed by the Finance Committee.

File Description	Documents
Upload relevant supporting document	View File

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

0

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.4.3 - Funds / Grants received from non-government bodies, individuals, philanthropists during the year for development and maintenance of infrastructure (not covered under Criteria III and V)(INR in Lakhs)

271

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.4.4 - Institution conducts internal and external financial audits regularly

BITS PILANI complies with the Indian Accounting Standards (Ind AS) advised by the Institute of Chartered Accountants of India and uses the accrual system of accounting. The Institute has an

effective internal control system that is error-free, and the system is routinely examined for operational effectiveness through a thorough internal audit of the Institute conducted by a reputable internal audit firm of the nation. The institute adheres to a strong internal control system and a comprehensive budgetary system, and the financial activities are assessed every quarter using a MIS and budgetary controls.

Internal Control -Every year, M/s. Aneja and Associates, Mumbai, undertake an internal audit for all campuses, including Dubai. This audit comprises a thorough examination of the controls and procedures for a variety of operations, including admissions, purchases, student welfare divisions, administration, and other areas.

Typical Internal Audit Observations: Internal audit control implemented through online approval system so that purchase orders / work orders can be made only after online approval from Dean Admin and Director.

1. Streamlined the process of awarding the outsourcing contracts through a committee with Chief Purchases and other faculty members including finance and accounts.

Statutory Audit

Every year, M/s. S R Batliboi & Associates, Chartered Accountants, Gurgaon does the statutory audit.

Every year, M/s. K P M G Lower Gulf Ltd. performs the statutory audit of BITS Dubai.

File Description	Documents
Upload relevant supporting document	View File

6.5 - Internal Quality Assurance System

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

Throughout its history, BITS Pilani has won numerous awards for empowering its students through superior teaching-learning and other academic activities. Since over 50 years ago, it has developed distinctive Practices and begun to pay close attention

to maintaining a high standard in the teaching-learning processes. Because of its structure and culture, which emphasize teamwork and constant progress, even average people have been able to do exceptionally well. All of this has aided the institute in developing an exceptional reputation among prospective students and companies of its graduates. The modern period has presented educators with a number of important opportunities as well as obstacles. Sincere efforts are being made by the institute to develop the best solutions for the teaching-learning community. The mission of TLC at BITS Pilani's Pilani Campus is to enable learner-centric teaching learning systems, to promote innovations in teaching learning and assessment methodologies, to enable the use of cutting-edge technologies in the teaching learning process, to promote research and innovation in the teaching learning process, to extend its wing for an outreach programme in teaching learning, and to build a platform for holistic development. TLC has successfully institutionalised capacity building programmes in the form of training, workshops, projects, and outreach activities for academics, students, and staff during the past few years.

File Description	Documents
Upload relevant supporting document	View File

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

A. Any 5 or all of the above

File Description	Documents
Upload the data template	View File
Upload relevant supporting document	View File

6.5.3 - Incremental improvements made for the preceding during the year with regard to quality (in case of first cycle) Post accreditation quality initiatives(second and subsequent cycles)

1. Compliance to Deemed University UGC Regulation: No pending compliance issues presently. The following three formal UGC compliances were completed by 2018:

a) Goa Campus Approval

b) Hyderabad campus approval

c) WILP approval.

1. Research Methodology course to be offered to all Ph.D. scholars: A compulsory Research Methodology course is part of the requirements for all Ph.D. students.
2. IQAC Functioning, AQAR Submission: IQAC is functioning smoothly. The UGC structure followed in the Committee structure. All AQAR submissions as per norms completed till 2020-21.
3. Research Metric improvement as per internationally recognised indices: Despite the pandemic, new external grant of Rs. 61.8 cr was received in FY22. The 5-year average annual grant increased by 306% from Rs. 18.5 cr/yr (FY13-17) to Rs. 75.1 cr/yr (FY18-22).
4. Contribution to National Mission projects
5. Strengthen alumni network to maximize the potentials
6. PhD enrolment and output
7. Documentation on the students' social diversity profile:
8. Functionalizing the MoUs signed to result in annual activities and outcomes:
9. Translational research to benefit the society and to improve the economy:
10. ERP implementation as an all-pervading tool to benefit all operations

File Description	Documents
Upload relevant supporting document	View File

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 year

Measures initiated by the Institution for the promotion of gender equality during the last five years:

The staff and students of BITS Pilani are totally dedicated to advancing gender equity and providing a secure working and learning environment. A policy paper for its "Statement of Commitment on Gender and Sexual Diversity" has been developed by BITS Pilani. On September 30, 2021, the policy paper was formally distributed to all academic employees, non-teaching staff, and students. BITS Pilani is one of the 30 organizations chosen to take part in GATI (Gender Advancement for Transforming Institutions), a ground-breaking project of the WISE-KIRAN Division of DST, GoI, to build competencies and adopt best Practices and pathways for transformational changes with a focus on gender equity and women's empowerment.

The Department of Humanities and Social Sciences offers elective courses in the undergraduate first-degree curriculum that are focused solely on gender equity and sensitization. Other courses address gender issues from a variety of angles, such as gender and developmental concerns. Additionally, a few of the faculty members are also engaged in gender-specific research.

File Description	Documents
Upload relevant supporting document	View File
Annual gender sensitization action plan(s)	https://www.bits-pilani.ac.in/Uploads/University_Upload/Policies_Procedures/Statement-of-commitment.pdf
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common rooms d. Daycare Centre e. Any other relevant information	https://www.bits-pilani.ac.in/uploads/Hostel%20Rules%20and%20Regulations%20Booklet.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment

A. Any 4 or All of the above

File Description	Documents
Upload relevant supporting document	View File

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

BITS prioritizes waste management across all four of its campuses and has implemented efficient waste management systems to handle different types of waste, including solid, liquid, biomedical, e-waste, and hazardous waste. At all the BITS campuses, there are ample trash bins provided throughout the campus to help control littering and facilitate proper waste segregation. These bins are strategically placed to ensure that they are easily accessible and encourage students, faculty, and staff to dispose of their waste responsibly. All BITS campuses have their own waste management system.

Solid Waste Management: Pilani Campus is establishing a 2-ton capacity organic waste processing plant to recycle organic or wet waste and convert it into electricity and manure. Hyderabad Campus operates a separate waste management yard to segregate domestic dry and wet waste.

Liquid waste management: At Pilani Campus, all liquid waste, including sewage, is treated in treatment plants using Aeration Activated Sludge and MBBR Technology. Two STPs, with a total capacity of 2.5 MLD, are currently operating successfully, making it a zero-discharge campus.

Biomedical waste management: All campuses segregate biomedical waste and send it to authorized vendors outside the campus.

E-waste management: All the campuses centrally collect e-waste and send it to the recyclers.

Hazardous chemicals and radioactive waste management: None of the campuses uses any radioactive material. The hazardous chemicals used in the labs are stored in separate fire-rated cabins.

File Description	Documents
Upload relevant supporting document	View File

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling

A. Any 4 or all of the above

Maintenance of water bodies and distribution system in the campus	
File Description	Documents
Upload relevant supporting document	View File
7.1.5 - Green campus initiatives include	
7.1.5.1 - The institutional initiatives for greening the campus are as follows: <ol style="list-style-type: none"> 1. Restricted entry of automobiles 2. Use of bicycles/ Battery-powered vehicles 3. Pedestrian-friendly pathways 4. Ban on use of plastic 5. Landscaping 	A. Any 4 or All of the above
File Description	Documents
Upload relevant supporting document	View File
7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution	
7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following: <ol style="list-style-type: none"> 1. Green audit 2. Energy audit 3. Environment audit 4. Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities 	A. Any 4 or all of the above
File Description	Documents
Upload relevant supporting document	View File
7.1.7 - The Institution has a disabled-friendly and barrier-free environment Ramps/lifts for easy access to classrooms and centres. Disabled-friendly washrooms Signage	B. Any 3 of the above

including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.

File Description	Documents
Upload relevant supporting document	View File

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words)

BITS Pilani is committed to being inclusive and has a diverse population of students, faculty and staff hailing from different parts of the country and abroad. The Institute takes proactive efforts in providing an inclusive environment and has an open policy of selection for its students and employees based on merit alone. There are no discriminatory policies and no provision exists for reservation based on caste, ethnicity or religion. Meritorious students, highly acclaimed faculty and competent staff join BITS from different parts of the country and abroad making the campuses extremely rich in diversity.

BITS Pilani is one of the few institutions which has been awarded Project GATI (Gender Advancement for Transforming Institutions) - Framework Development for Advancing Gender Equality in Science and Technology and Higher Education in India with a UK partner University. GATI is an innovative overarching Pilot Project supported by DST, GoI. It ushers a new intervention programme for gender equality in S&T institutes.

With a broader perspective of gender diversity, BITS Pilani has set up an 'ANCHOR- Gender and Sexuality Cell' which is the first of its kind. This cell formed by BITSians is a group for Queer, Questioning and Supporting members. It was founded in 2012 to raise awareness about LGBTQ+ issues and has evolved to cover issues of Gender & Sexuality - becoming the Gender and Sexuality Cell, led by BITSians.

File Description	Documents
Upload relevant supporting document	View File
<p>7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:</p> <p>A responsible and educated community can be built through educating students and staff members about their constitutional duties, rights, and obligations.</p> <p>The Indian Constitution establishes the parameters for our obligations, rights, and liabilities as citizens. Every year, a number of national and local celebrations are held, including Founders Day, National Unity Day, Gandhi Jayanti, and Independence Day. On special days like Independence Day and Republic Day, everyone takes the pledge. Through their patriotic songs, the youngsters beautifully convey India's fervour for patriotism, unifying variety, and rich cultural legacy.</p> <p>ideals: All students take an environmental studies course in their second year as part of reinforcing democratic ideals. This course provides information on environmental laws, wildlife protection laws, forest laws, international environmental issues, etc.</p> <p>Rights: Teaching people about their rights can help them recognise how important they are and how to safeguard them. Every year, the student body takes part in the election process to choose the top candidates to serve as student leaders.</p> <p>Duties: Being aware of one's duties can help one become a responsible citizen. Numerous student organizations, including Nirmaan, NSS, Rotaract, and the Social and Environment Club, are actively organising activities to instill the principles of becoming a better citizen and making every effort to improve our nation</p> <p>obligations: Teaching students and staff about their obligations can encourage civic engagement and help them become contributing members of society.</p> <p>More InformatonClick Here - https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.1.9/File_7.1.9_PGHD_AB.pdf</p>	
7.1.10 - The Institution has a prescribed code of conduct for students, teachers,	All of the above

administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on Code of Conduct are organized

File Description	Documents
Upload relevant supporting document	View File

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

BITS Pilani is fully committed to promote gender equity and ensure a safe environment for their students and employees. BITS Pilani has come up with a policy document for its "Statement of commitment on gender and sexual diversity". The policy document was officially released and shared with all faculty members, non-teaching staff members, and students on 30th September 2021. BITS Pilani is among the 30 institutions selected to participate in the GATI (Gender Advancement for Transforming Institutions), a novel initiative of WISE-KIRAN Division of DST, GoI for creating an ecosystem to build competencies and adopting best practices and pathways for transformational changes with focus on gender equity and women empowerment.

In the academic curriculum for First-degree students (undergraduate students), the Department of Humanities and Social Sciences offers elective courses that exclusively deal with Gender equity & sensitization. There are other courses that cover gender aspects from various dimensions including gender and developmental issues. Moreover, some of the faculty members are also doing research in gender specific issues. The institute has fully residential campuses, where all students, faculty members & non-teaching staff members reside inside the campuses. The institute has an "Internal Complaints Committee (ICC)" with the mandate of prevention, prohibition and redressal of sexual harassment of women employees and students and "Gender Champions team" with the mandate to advocate for gender equality and monitor progress towards gender justice".

File Description	Documents
Upload relevant supporting document	View File

7.2 - Best Practices

7.2.1 - Describe one best practice successfully implemented by the Institution as per NAAC format provided in the Manual

Objectives of the Practice

By providing a conducive innovation and entrepreneurial ecosystem to the brightest young minds and faculty to translate ideas into successful ventures and solution to real world problems.

The objectives of this practice are:

- 1.To develop managerial and technical capabilities and entrepreneurial mindset in students and faculty
- 2.To enable students to create new ventures contributing to innovation and employment generation
- 3.To enable faculty and research students to translate their research outcome into a market oriented solution in terms of new products/processes/ technologies

The context

One of the greatest strength of BITS Pilani lies in the intellectual capabilities of its students and faculty members. In order to channelize these capabilities to create innovations, new ventures, employment and solutions for market / societal problems requires a conducive innovation and entrepreneurial ecosystem within the institute to overcome individual (fear of failure, avoidance of risk, lack of confidence and exposure) and structural barriers (access to seed fund, mentoring, infrastructure support, legal processes and services).

The Practice

Student's related practices and its uniqueness

For developing the innovative and entrepreneurial skills among students great emphasis has been given on academic curriculum that involves structured & experiential learning based courses

Faculty related practices

BITS Pilani encourage faculty members to translate their research output into a product / processes / technology to meet the market needs.

For More Information Click Here - [https://ikac.bits-pilani.ac.in/NAC-AAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.2.1/File%20Description%20\(Upload\)_7.2.1_PGHD_A.pdf](https://ikac.bits-pilani.ac.in/NAC-AAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.2.1/File%20Description%20(Upload)_7.2.1_PGHD_A.pdf)

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

Area: Industry Engagement

Industry engagement is one of the cornerstones of the educational philosophy of BITS Pilani. BITS Pilani views education as a continual engagement and experience, and ensures that the learning experience is integrated seamlessly not only across its classrooms and laboratories, but also in the industry, as exemplified by two of its largest and most successful such programmes, Work Integrated Learning Programmes (WILP) and Practice School (PS) which are outstanding models of industry-academia cooperation. WILP enables employed professionals to pursue formal educational programs at BITS while they are working whereas Practice School (PS) is an innovation seeking to link industry experience with university instruction for students studying at the different campuses of BITS.

We believe no other institute in the country has implemented industry engagement at this scale and eminence - it is by far the best. The summary statistics is given below:

PS: For 2021-22, no. of students in PS-II: 3657 (UG=2933, PG=724), no. of PS-II industry stations: 576. Number of Pre-placement Offers: 1461 (40% of batch) - by far the highest in the country. Total stipend received by the students from the companies: Rs.98.7 cr.

WILP: Enrolment: 36,500. Alumni: 105000+. 1100+ Faculty members. 38 Programs. Programs for Organizations: in 9 sectors of the industry. MBA in 8 contemporary specialisations.

Practice School orients education so as to:

1. meet the rapidly changing needs and challenges of a professional workplace,

2. enable students to acquire learning by applying the knowledge and skills they possess, in unfamiliar, open-ended real work life situations, and bear an economic relevance to society.

For More Information Click Here -[https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.3.1/File%20Description%20\(Upload\)_7.3.1_PGHD.pdf](https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.3.1/File%20Description%20(Upload)_7.3.1_PGHD.pdf)

7.3.2 - Plan of action for the next academic year

Overseas Faculty recruitment

BITS Pilani's main responsibility since being recognised one of the Institute of Eminence has been to hire people from other countries for faculty jobs. ACM (Association for Computing Machinery), SIAM (Society for Industrial and Applied Mathematics), ASME (The American Society of Mechanical Engineers), EPW (Economic & Political Weekly), and Nature Research all published adverts for professor recruitment in the academic year 2021-2022. BITS Pilani has been actively taking part in faculty hiring activities sponsored by SciROI [Science and Research Opportunities in India] over the past three years. With the help of renowned academic institutions in India, SciROI makes it easier for STEM experts from the US to return to India. This method was used to bring in a number of highly regarded faculty members, and we still communicate with them for this reason.

Alumni Relations

A dynamic team that operates both centrally and at empowered campus levels is the Pilani Alumni Relations Cell. Professionals who work full time in fundraising, managing donations, reporting, and monitoring staff the organization.

Internationalization

In order to provide its students exposure to other cultures, BITS Pilani has developed an off-campus thesis option and a semester abroad programme.

For Informaiton Click Here -[https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.3.2/File%20Description%20\(Upload\)_7.3.2_PGHD.pdf](https://ikac.bits-pilani.ac.in/NAAC-SSR-CYCLE-4/AQAR_21-22/Criteria-7/7.3.2/File%20Description%20(Upload)_7.3.2_PGHD.pdf)

