



YEARLY STATUS REPORT - 2020-2021

Part A	
Data of the Institution	
1.Name of the Institution	MAR BASELIOS INSTITUTE OF TECHNOLOGY AND SCIENCE
• Name of the Head of the institution	Dr. P Sojan Lal
• Designation	Principal
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	04852837807
• Mobile no	9446745380
• Registered e-mail	dean.ac@mbits.edu.in
• Alternate e-mail	office@mbits.ac.in
• Address	Mar Baselios Institute of Technology and Science Nellimattom P. O., Kothamangalam, Ernakulam District.
• City/Town	Kothamangalam
• State/UT	Kerala
• Pin Code	686693
2.Institutional status	
• Affiliated /Constituent	Affiliated
• Type of Institution	Co-education
• Location	Rural

• Financial Status	Self-financing				
• Name of the Affiliating University	APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala				
• Name of the IQAC Coordinator	Dr. Solly George				
• Phone No.	04852837807				
• Alternate phone No.	04852837801				
• Mobile	8943672581				
• IQAC e-mail address	iqac@mbits.ac.in				
• Alternate Email address	info@mbits.ac.in				
3.Website address (Web link of the AQAR (Previous Academic Year))	https://www.mbits.edu.in/uploads/IQAC/files/AQAR_(2019-2020).pdf				
4.Whether Academic Calendar prepared during the year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.mbits.edu.in/uploads/				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	B++	2.78	2020	14/02/2020	13/02/2025
6.Date of Establishment of IQAC			15/01/2014		
7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,					

Institutional/Department /Faculty	Scheme	Funding Agency	Year of award with duration	Amount
IEDC, MBITS	Annual Funding for Startups	KSUM	2021	150000
IQAC, MBITS	Funding for Webinar	NAAC	2020	16300
IEI Students Chapter, MBITS	Scheme for Promoting Interests, Creativity & Ethics among Students (SPICES)	AICTE	2021	100000
Computer Science and Engineering Department, MBITS	CERD PhD fellowship	KTU	2021	195968

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	9		
<ul style="list-style-type: none"> • Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website? 	Yes		
<ul style="list-style-type: none"> • If No, please upload the minutes of the meeting(s) and Action Taken Report 	No File Uploaded		
10. Whether IQAC received funding from any of the funding agency to support its activities during the year?	Yes		

• If yes, mention the amount	16300
11. Significant contributions made by IQAC during the current year (maximum five bullets)	
<ul style="list-style-type: none"> • Much efforts were put in at the time Covid - 19 pandemic to keep the teaching - learning process unaffected through the modified Learning Management System. • Tried to improve the effectiveness of online teaching and evaluation. • Special attention was given to improve the academic results. • Revamped the activities of the College Placement Cell. • Took initiative to popularize the NEP 2020 and encouraged various Cells and Clubs for conducting various activities through webinars. 	
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
Fine tuning of OBE	Departments prepared pre-qualifier for checking the eligibility
To make more students / staff to do as many online certificate courses as possible	MBITS was selected as NPTEL local chapter. Number of enrolment became more (47 students successfully completed and got certificates)
Gave directions to apply for more AICTE funding schemes	Submitted three MODROB proposals (from ECE, ME & CE) and two RPS proposals (from CE & ME) to AICTE
Make the online classes more effective	Based on the feedback on online classes through google form and online meeting with class representatives, the connectivity issues faced by the students during classes were resolved by providing interval between classes and providing recorded classes
Conduct programmes to motivate students for better placement and address the issues collected from the employers	More intensive and effective aptitude training and mock tests were given online

13. Whether the AQAR was placed before statutory body?	Yes				
<ul style="list-style-type: none"> Name of the statutory body 					
<table border="1"> <thead> <tr> <th>Name</th> <th>Date of meeting(s)</th> </tr> </thead> <tbody> <tr> <td>Planning and Monitoring Committee</td> <td>20/12/2021</td> </tr> </tbody> </table>		Name	Date of meeting(s)	Planning and Monitoring Committee	20/12/2021
Name	Date of meeting(s)				
Planning and Monitoring Committee	20/12/2021				
14. Whether institutional data submitted to AISHE					
<table border="1"> <thead> <tr> <th>Year</th> <th>Date of Submission</th> </tr> </thead> <tbody> <tr> <td>2022</td> <td>13/03/2022</td> </tr> </tbody> </table>		Year	Date of Submission	2022	13/03/2022
Year	Date of Submission				
2022	13/03/2022				
Extended Profile					
1. Programme					
1.1 Number of courses offered by the institution across all programs during the year	292				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td style="text-align: center;">View File</td> </tr> </tbody> </table>		File Description	Documents	Data Template	View File
File Description	Documents				
Data Template	View File				
2. Student					
2.1 Number of students during the year	1023				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Institutional Data in Prescribed Format</td> <td style="text-align: center;">View File</td> </tr> </tbody> </table>		File Description	Documents	Institutional Data in Prescribed Format	View File
File Description	Documents				
Institutional Data in Prescribed Format	View File				
2.2 Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	92				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td style="text-align: center;">View File</td> </tr> </tbody> </table>		File Description	Documents	Data Template	View File
File Description	Documents				
Data Template	View File				

2.3	248
Number of outgoing/ final year students during the year	
File Description	Documents
Data Template	View File
3.Academic	
3.1	92
Number of full time teachers during the year	
File Description	Documents
Data Template	View File
3.2	90
Number of sanctioned posts during the year	
File Description	Documents
Data Template	View File
4.Institution	
4.1	39
Total number of Classrooms and Seminar halls	
4.2	558.79232
Total expenditure excluding salary during the year (INR in lakhs)	
4.3	402
Total number of computers on campus for academic purposes	
Part B	
CURRICULAR ASPECTS	
1.1 - Curricular Planning and Implementation	
1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process	
The institute is affiliated to APJ Abdul Kalam Technological	

University and follows the university designed curriculum. The effective curriculum delivery is ensured through the following procedure:

- **Academic Committee Meeting:** Principal, HODs and Deans meet either online or offline once in a week. HODs discuss their action plans to arrive an optimal and effective way of implementation of curriculum delivery.
- **Department Staff Meeting:** Department wise staff meetings are conducted either online or offline once in a week. Decisions in the Academic Committeemeeting are conveyed to the faculty members. Suggestions from them are collected and formulated as action plans.
- **Course Plan:** Before the beginning of the semester a course plan is prepared for every course by the respective faculty and is approved by the HOD.
- **Course File:** Faculty members maintain a course file for all courses including laboratory courses.
- **Course/ Class Committee Meeting:** Periodic Course / Class Committee Meeting with students' representatives are conducted either online or offline for the effective implementation of Course plan. Suggestions from students are also considered.
- **Practical courses:** Laboratory manual is prepared for all the experiments and is given to students. Detailed online lecture with demonstration of each experiment is conducted for students.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	Nil

1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

- The university prepares an academic calendar that specifies the duration of the semester, date of commencement and end date, examination dates etc.
- Based on the university academic calendar, a detailed academic calendar is prepared and published by the institute which includes internal test dates, remedial classes, extracurricular activities etc. All classes were conducted online strictly following the academic calendar.
- Tutorials: Tutorials are conducted regularly and effectively.
- Result Analysis: Proper evaluation of internal exams, tutorials and assignments are done by faculty members and are reviewed by the HOD.
- Remedial Classes: Remedial classes are arranged for weak students who show poor performance in internal examinations.
- Progress Report: Progress report of each student including internal exam marks and University results are available in Elive campus software.
- PTA meeting: PTA meeting is conducted in each semester and students' progress report is distributed to parents. Feedback from parents are collected and considered for the overall improvement.
- Feedback System: Timely feedback is obtained from the students, staff, training and placement cell and alumni. Measures are taken to do necessary changes by the IQAC.
- Course End Survey: To assess the effectiveness of curriculum delivery, course end survey is being conducted for all the courses and feedback is considered for further improvement.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	Nil

<p>1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University</p>	<p>C. Any 2 of the above</p>								
<table border="1"> <thead> <tr> <th data-bbox="84 656 542 712">File Description</th> <th data-bbox="550 656 1461 712">Documents</th> </tr> </thead> <tbody> <tr> <td data-bbox="84 723 542 891">Details of participation of teachers in various bodies/activities provided as a response to the metric</td> <td data-bbox="550 723 1461 891" style="text-align: center;">View File</td> </tr> <tr> <td data-bbox="84 902 542 947">Any additional information</td> <td data-bbox="550 902 1461 947" style="text-align: center;">View File</td> </tr> </tbody> </table>	File Description	Documents	Details of participation of teachers in various bodies/activities provided as a response to the metric	View File	Any additional information	View File			
File Description	Documents								
Details of participation of teachers in various bodies/activities provided as a response to the metric	View File								
Any additional information	View File								
<p>1.2 - Academic Flexibility</p>									
<p>1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented</p>									
<p>1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented</p>									
<p>7</p>									
<table border="1"> <thead> <tr> <th data-bbox="84 1305 542 1361">File Description</th> <th data-bbox="550 1305 1461 1361">Documents</th> </tr> </thead> <tbody> <tr> <td data-bbox="84 1373 542 1429">Any additional information</td> <td data-bbox="550 1373 1461 1429" style="text-align: center;">View File</td> </tr> <tr> <td data-bbox="84 1440 542 1529">Minutes of relevant Academic Council/ BOS meetings</td> <td data-bbox="550 1440 1461 1529" style="text-align: center;">View File</td> </tr> <tr> <td data-bbox="84 1541 542 1630">Institutional data in prescribed format (Data Template)</td> <td data-bbox="550 1541 1461 1630" style="text-align: center;">View File</td> </tr> </tbody> </table>	File Description	Documents	Any additional information	View File	Minutes of relevant Academic Council/ BOS meetings	View File	Institutional data in prescribed format (Data Template)	View File	
File Description	Documents								
Any additional information	View File								
Minutes of relevant Academic Council/ BOS meetings	View File								
Institutional data in prescribed format (Data Template)	View File								
<p>1.2.2 - Number of Add on /Certificate programs offered during the year</p>									
<p>1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)</p>									
<p>2</p>									

File Description	Documents
Any additional information	No File Uploaded
Brochure or any other document relating to Add on /Certificate programs	View File
List of Add on /Certificate programs (Data Template)	View File

1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

43

File Description	Documents
Any additional information	View File
Details of the students enrolled in Subjects related to certificate/Add-on programs	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

1. GENDER

- The College Women Cell conducted a webinar on the topic "Professional Development of Women Engineers in Post Covid Era" in association with Accredited training.online, Canada and YMCA, Pothenicad from 20th to 22nd July 2020.

2. ENVIRONMENT AND SUSTAINABILITY

- Courses relevant to Environment and Sustainability included in the curriculum are Sustainable Engineering, Disaster Management, Energy Management and Auditing, Municipal Solid Waste Management and Energy Conservation and Management.
- The department of Civil Engineering has organized a KTU sponsored 3 day online Faculty Development Programme on the topic "Sustainable Building Materials and Practices" from 28th to 30th April 2021 and an International webinar on "Role of Civil Engineers for Sustainable Development" from 14th to 16th July 2020.

- NSS units of our college has organized awareness programme on stem cell donation, webinar on awareness on world hospice & palliative care day, webinar on depression & stress management, field work on monsoon cleaning & awareness, class on Energy Audit, Pipe compost, celebrated Ozone day etc.

3. HUMAN VALUES AND PROFESSIONAL ETHICS

- Courses relevant to Human values and Professional ethics included in the curriculum are Design and Engineering, Life Skills, Principles of Management , Professional Ethics, Constitution of India and Professional Communication.

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

1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

14

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	No File Uploaded
Institutional Data in Prescribed Format	View File

1.3.3 - Number of students undertaking project work/field work/ internships	
81	
File Description	Documents
Any additional information	View File
List of programmes and number of students undertaking project work/field work/ /internships (Data Template)	View File
1.4 - Feedback System	
1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni	A. All of the above
File Description	Documents
URL for stakeholder feedback report	https://sites.google.com/mbits.ac.in/feedbacksystem/home
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View File
Any additional information	No File Uploaded
1.4.2 - Feedback process of the Institution may be classified as follows	A. Feedback collected, analyzed and action taken and feedback available on website
File Description	Documents
Upload any additional information	View File
URL for feedback report	https://sites.google.com/mbits.ac.in/feedbacksystem/home
TEACHING-LEARNING AND EVALUATION	
2.1 - Student Enrollment and Profile	

2.1.1 - Enrolment Number Number of students admitted during the year**2.1.1.1 - Number of students admitted during the year**

228

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

2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)**2.1.2.1 - Number of actual students admitted from the reserved categories during the year**

46

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

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

The institution collects and analyses the previous academic reports of newly admitted students. Advanced and slow learners can easily be categorized with these details. Induction programmes in online mode were arranged for familiarizing them to engineering and technological fields.

In the subsequent semesters the advanced and slow learners are identified by academic report, faculty feedback, classroom involvement and parent feedback.

Strategies for slow learners:

- Remedial classes with separate time table are conducted in online mode to clarify doubts and re-explain the topics
- Mentoring sessions conducted in a friendly way to achieve their goals

- Providing learning materials
- PTA meeting

Strategies for Advanced Learners:

- Intellectually stimulated with various advanced projects and challenging assignments.
- Encouraged to present/write research articles and to attend webinars which giving them an opportunity to interface with the academia/industry experts.
- They are usually made class representatives for proactive leadership.
- Encouraged to take honours and minor subjects in higher semesters.
- Motivated for preparing competitive examination like GATE
- Encourage to take up massive open online course (MOOC)

The above process brings out the improvement in results and pass percentage, quality of projects, placements and student's understanding in their chosen domain.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Number of Students	Number of Teachers
1023	92

File Description	Documents
Any additional information	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

- Students are inspired to take (Massive Open Online Courses) MOOCs offered by premier institutions of the country.
- Participation in professional societal activities of IEEE is currently encouraged.
- Periodical Guest lectures on topics relevant to employment skills by personnel from respective organizations / industry are conducted through webinars.
- Research oriented workshops including advanced concepts are provided at postgraduate level to understand the importance of pooling ideas and inter-disciplinary participative learning techniques.
- Practical courses are enriched by virtual labs in the curriculum.
- Project works involving latest technologies and use of advanced soft-wares like Ansys, CAD etc. are encouraged.
- Students are motivated to take up innovative projects and mini projects. One team from MBITS became winners in Smart India Hackathone-Hardware (2020-21).
- A student's reflection on the experiential learning is assessed through field /internship reports, post visit Discussions and student presentations.
- To improve problem solving skills students from various departments did 1 month course on Robotic Process Automation conducted by Ulpath in collaboration with ASAP Kerala.

File Description	Documents
Upload any additional information	View File
Link for additional information	Nil

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

All the faculties use Laptop computers for preparing their notes and presentations. The use of digital platforms for the conduct of online tutorials, examinations is one of the best practices of MBITS. Even during the lockdown period, MBITS was quick enough to start online lectures. In fact not a single day's lectures were missed and MBITS started lectures online. Every faculty member used online applications without any trouble. MBITS faculties have been using Google Meet, Zoom and WebEx platforms for conducting online lectures for students flawlessly.

MBITS extensively uses an intranet platform, Elive, which includes attendance, assignment and test marks etc. Students of MBITS frequently use online resources such as E-journals on DELNET, IETE and subject presentations from National Digital Library. Students are motivated to refer to E-books for gaining additional knowledge. Since the new generation is more inclined to e-resources, it is convenient. One of MBITS' computer labs is equipped with a Smart board. Based on the need the smart board is used by all the faculty members. The versatility of smart boards makes it very convenient for the faculty as well as students.

File Description	Documents
Upload any additional information	View File
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	No File Uploaded

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

2.3.3.1 - Number of mentors

70

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	View File
Circulars pertaining to assigning mentors to mentees	View File
Mentor/mentee ratio	No File Uploaded

2.4 - Teacher Profile and Quality

2.4.1 - Number of full time teachers against sanctioned posts during the year

92

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	No File Uploaded
List of the faculty members authenticated by the Head of HEI	View File

2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

7

File Description	Documents
Any additional information	View File
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year (Data Template)	View File

2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

2.4.3.1 - Total experience of full-time teachers

652

File Description	Documents
Any additional information	No File Uploaded
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

- Due to the present pandemic situation, the orientation programme held at the beginning of each academic year is done in Google meet; which apprises the students and their parents about the evaluation process and the schedule.
- Parents and students are provided with user ids and passwords to access the full fledged campus software, ELive.
- Class tests are conducted through Google meet and are notified one week in advance. Students are strictly invigilated by teachers by making their videos ON at the time of examination.
- The corrected answer scripts of examinations are returned to the students after evaluation in Google classroom to bring out the discrepancies, if any, to the notice of the teacher concerned, and the necessary corrections are carried out.
- In laboratory courses, continuous assessment is done by considering day to day laboratory work and preparation, regular class viva & end semester examination and is uploaded in the Google classroom.
- Students submit their assignments as per the scheduled date specified by faculty in Google classroom.
- Class/course committee meetings are conducted after each internal exam and results are analyzed in the meeting through Google meet. Students can provide their suggestions during the meeting.

File Description	Documents
Any additional information	View File
Link for additional information	Nil

2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time- bound and efficient

1. Grievances during the conduct of examination

Due to the present pandemic situation the examinations are conducted in online mode. If any students faces difficulty in uploading the answer sheets, intimate the matter to respective faculty member, send through WhatsApp and subsequently upload to Google classroom. If students are facing serious network problems, college facility will be opened for them, keeping all Covid19 protocols. Students who couldn't attend the examination because of medical issues related with Covid19 infections should request for retest with all relevant documentary evidences to HOD.

2. The concerned faculty scrutinizes grievances with reference to evaluation at the institute level and all queries are responded by the staff advisors of each class.

The class tutors carefully monitor the attendance and performance of the students in evaluation test.

3. Grievances are also discussed in class/course committee

The grievances are discussed in the class/course committee at the beginning, mid and end of each semester in Google classroom. The committee consists members as prescribed by the university. The time and agenda of the meeting is published in the Google classroom and are informed to committee members.

4. All Grievances are reviewed and handled by the Faculty, HODs and Principal

File Description	Documents
Any additional information	View File
Link for additional information	Nil

2.6 - Student Performance and Learning Outcomes

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

Programme outcomes for the UG and PG are specified by the AICTE and are set as it is. Every department has its own Programme Specific Outcomes formulated with due importance to the core areas. Course Outcomes for each course have been defined as per the syllabus given by the university. PSOs are limited to 3 or 4 and COS are limited to a maximum of 6.

Programme Outcomes (POs) are displayed on Notice board, Labs, Seminar Halls, Newsletters, brochures, website, etc. Programme Specific Outcomes (PSOs) and Course Outcomes (COs) are stated and displayed on notice boards, class rooms, respective departments, laboratories, course file, tutorial book, Lab work book, website, etc.

The PSOs of all departments are attached herewith

CIVIL ENGINEERING DEPARTMENT

PSO1. Analyse, design and construct various civil engineering structures.

PSO2. Follow the economical, environmental and safety factors involved in the construction industry.

PSO3. Apply the state of the art modern tools for planning, designing, scheduling, execution and management of civil engineering projects.

MECHANICAL ENGINEERING DEPARTMENT

PSO1. Apply energy, momentum, continuity, state and constitutive equations to thermal, fluids and mechanical systems in a logical and discerning manner.

PSO2. Model, analyse, design and realize thermal, fluid, mechanical, production and control systems to meet specifications.

PSO3. Identify, formulate, and solve thermal, fluid, management and other mechanical engineering problems by applying first principles.

PSO4. Develop practical solutions for mechanical engineering

problems under professional and ethical constraints.

COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

PS01. Coverage of the fundamentals of the algorithms, design, data structures, concepts of programming languages and recent techniques to solve the industry specific problems.

PS02. Ability to understand concepts, communication and security of interconnected community of computers and its architectural organization.

PS03. Apply advanced software technologies and managerial tools to mould students to reach the industrial standards.

PS04. Capability to design and develop logic systems circuits and integrated components.

ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT

PS01. An ability to analyze electrical and electronic circuits and systems to cater the needs of industry and society.

PS02. Design, implement and control cost effective and environmentally benign energy systems and electric drives.

PS03. Potentiality to develop instrumentation, communication systems and algorithms to realize state of the art utilities.

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

PS01. Design electronics or communication systems, components or process to meet desired needs within realistic constraints such as public health and safety, economic, environmental and societal considerations.

PS02. Acquire and practice the knowledge of professional and ethical responsibilities and develops the management skills to estimate the requirements and to manage projects in multidisciplinary environments such as estimation, design and modeling and interpretation of results.

PS03. To select and apply appropriate techniques, skills and modern engineering tools for the design & analysis of electronics & communication engineering. An ability to apply knowledge of computing, mathematical foundations, algorithmic principles, and

computer science and engineering theory in the modeling and design of computer-based systems to real-world problems

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	http://www.mbits.edu.in/departments
Upload COs for all Programmes (exemplars from Glossary)	View File

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

The institute follows outcome based education system in which the focus is laid on what the students can reproduce at the end of a module or a course or the entire program after the learning period.

Teaching Learning Process cycle starts from the preparation of course objectives. As per the course objectives specified by the university course outcomes are set and the course plan is designed. The course outcomes are prepared by the respective faculty members. Course plan also include method and schedule for the class assessments.

As per the university norms two internal assessments are conducted with first one containing 1 & 2 modules and second one containing 3 & 4 modules and evaluation is done. Tutorials/assignments are also conducted for all the modules. The question papers for assessment are prepared based on course outcomes and incorporating Bloom's taxonomy.

Measurement of attainment of outcomes includes direct method of assessment and indirect method of assessment. Direct method assessment is done based on the marks obtained by students of the whole class for a particular course.

At the preliminary stage of attainment calculation, the prepared COs for each course in the four year engineering degree program is mapped towards specified POs and PSOs with correlation levels ranges from 1 to 3; 1 being the low correlation, 2 being medium correlation and 3 being high correlation.

In direct method marks obtained by students in class tests and tutorial tests are used to measure the respective COs using which PO, PSO attainments can be calculated.

In indirect method a course endsurvey is being taken from students for each course. Based on the five point scale, attainment of each CO is calculated.

Attainment of PO and PSO:

- List down COs for all courses
- Prepare CO-PO and CO-PSO matrices for all courses indicating the correlation 1.Low 2. Medium 3.High

CO Attainment

- Direct Method
 1. Calculate the marks of each student for all COs considering marks of internal tests, assignments and tutorials
 2. Prepare a table containing marks (in %) of all students for each CO in the course.
 3. Measure CO attainment level for eachCO based on Internal Assessment marks.
- Indirect Method

In indirect method, a course end survey has been conducted for each course regarding their course outcomes. Different grades A,B,C,D,E are givenwith the following weightages. A - 5, B - 4, C - 3, D - 2, E - 1

Calculation of PO and PSO attainment

1. From CO-PO matrix and CO-PSO matrix, the attainment level is calculated as follows for both direct and indirect methods.Attainment of each PO and PSO is calculated by multiplying the weightage of the CO attainment level with the corresponding correlation.
2. Graduate survey is conducted for final year students for calculating PO attainment indirectly.
3. Calculate final attainment of POs & PSOs from direct and

indirect attainment levels.

Final attainment = 80% direct level + 20% indirect level

File Description	Documents
Upload any additional information	View File
Paste link for Additional information	Nil

2.6.3 - Pass percentage of Students during the year

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

228

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View File
Upload any additional information	No File Uploaded
Paste link for the annual report	Nil

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 weblink)

[https://www.mbits.edu.in/uploads/IOAC/files/STUDENT_SATISFACTION_SURVEY\(2020-2021\).pdf](https://www.mbits.edu.in/uploads/IOAC/files/STUDENT_SATISFACTION_SURVEY(2020-2021).pdf)

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Resource Mobilization for Research

3.1.1 - Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

3.1.1.1 - Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

4.62268

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	View File
List of endowments / projects with details of grants(Data Template)	View File

3.1.2 - Number of teachers recognized as research guides (latest completed academic year)

3.1.2.1 - Number of teachers recognized as research guides

1

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

3.1.3 - Number of departments having Research projects funded by government and non government agencies during the year

3.1.3.1 - Number of departments having Research projects funded by government and non-government agencies during the year

4

File Description	Documents
List of research projects and funding details (Data Template)	View File
Any additional information	No File Uploaded
Supporting document from Funding Agency	View File
Paste link to funding agency website	Nil

3.2 - Innovation Ecosystem

3.2.1 - Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

- Our Innovation and Entrepreneurship Development Cell (IEDC) and Institution Innovation Council (IIC) have created an innovative ecosystem that enables our students to come up with innovative ideas.
- IEDC MBITS has conducted and participated various programmes during 2020 - 2021 academic year.
- The programmes conducted can be grouped as innovation phase, technology phase and entrepreneurship & business phase.
- The innovation phase includes ideation programme, talk by experts and orientation programmes.
- Skill share - Android app development & workshop on artificial intelligence and machine learning comes under Technology phase.
- In entrepreneurship and business phase, meet the entrepreneur and demo day were conducted.
- Nodal officers and student coordinators have participated INSPIRE 2020 hosted by IEDC MES AIMAT, Marampally.
- All the executive committee members and more than 30 students have participated in IEDC summit 2021 hosted by ASIET, Kalady.
- One of our team -TEAM COSMOS got first prize in Smart India Hackathon 2020 - Hardware edition.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.mbits.edu.in/activities/entrepreneur

3.2.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the year

3.2.2.1 - Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during the year

15

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
List of workshops/seminars during last 5 years (Data Template)	View File

3.3 - Research Publications and Awards

3.3.1 - Number of Ph.Ds registered per eligible teacher during the year

3.3.1.1 - How many Ph.Ds registered per eligible teacher within the year

3

File Description	Documents
URL to the research page on HEI website	Nil
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	View File
Any additional information	View File

3.3.2 - Number of research papers per teachers in the Journals notified on UGC website during the year

3.3.2.1 - Number of research papers in the Journals notified on UGC website during the year

6

File Description	Documents
Any additional information	View File
List of research papers by title, author, department, name and year of publication (Data Template)	View File

3.3.3 - Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year

3.3.3.1 - Total number of books and chapters in edited volumes/books published and papers in

national/ international conference proceedings year wise during year

8

File Description	Documents
Any additional information	View File
List books and chapters edited volumes/ books published (Data Template)	View File

3.4 - Extension Activities

3.4.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

The institute organizes a number of extension activities to promote institute-neighborhood community to sensitize the students towards community needs. The students of our college actively participate in social service activities leading to their overall development. The college runs effectively National Service Scheme. Through this, the college undertakes various extension activities in the neighborhood community.

Several activities were carried out by NSS volunteers addressing social issues which include cleanliness, plantation of saplings, Shramdan, Social interaction, Environmental awareness, Women empowerment, National Integrity, Aids awareness, Blood donation camp, Health Awareness, Agricultural Programs etc.

During Covid'19 pandemic, NSS organised various activities like distribution of Masks and Sanitizers, awareness campaigns.

All these mentioned activities have a positive impact on the students and it developed community relationship, leadership skill and self confidence of students. It also helped in cultivating the hidden personality of students and created awareness among students.

File Description	Documents
Paste link for additional information	http://mbits.edu.in/activities/nss
Upload any additional information	View File

3.4.2 - Number of awards and recognitions received for extension activities from government / government recognized bodies during the year

3.4.2.1 - Total number of awards and recognition received for extension activities from Government/ Government recognized bodies year wise during the year

4

File Description	Documents
Any additional information	View File
Number of awards for extension activities in last 5 year (Data Template)	View File
e-copy of the award letters	No File Uploaded

3.4.3 - Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year**3.4.3.1 - Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year**

37

File Description	Documents
Reports of the event organized	View File
Any additional information	No File Uploaded
Number of extension and outreach Programmes conducted with industry, community etc for the during the year (Data Template)	View File

3.4.4 - Number of students participating in extension activities at 3.4.3. above during year**3.4.4.1 - Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year**

214

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	View File

3.5 - Collaboration

3.5.1 - Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship during the year

3.5.1.1 - Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year wise during the year

66

File Description	Documents
e-copies of related Document	View File
Any additional information	No File Uploaded
Details of Collaborative activities with institutions/industries for research, Faculty	View File

3.5.2 - Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the year

3.5.2.1 - Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the year

17

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

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

The vision of the management is to nurture a positive campus culture and equip the younger generation to take our nation forward. The Institution has a systematic approach in improvising infrastructure and learning resources to enhance the quality of education by providing effective teaching and learning through the feedback from the students, parents and the alumni.

Campus Infrastructure & Departments

- Campus area - 10.52 acres of land
- Office administration, Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering & Electronics and Communication Engineering - housed in the Main Block
- Computer Science and Engineering & the Science and Humanities Department - St. Thomas Block
- Classrooms - 34, of which 14 are ICT enabled

Computer Facilities

- The institution has 6 computer labs with a total of 320 PCs
- Students are given basic training in computer education and are given access to the campus automation software E-live

Library

- Area - 632 sqm
- Books - 19,250
- Rare books and journals, magazines and non-book materials - 71

Hostel

- Men's hostel - 44 rooms, can accommodate a total of 130 inmates
- Ladies hostel - 48 rooms, can accommodate a total of 144 inmates

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.mbits.edu.in/resources

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

Mar Basil Group of Institutions has always encouraged and supported the co-curricular and extracurricular activities. Our Institute, one among the group, provides facilities not only for the academics but also for the overall improvement of the students. The Institute provides adequate facilities for indoor and outdoor games and encourages our college teams to be a part of the various sport activities organized in the state.

Cultural Activities

- RHYTHM, the Arts Fest of the college, encompasses a wide range of art genres.

Sports and Games

- The college has enough space for various sports and games activities

Facilities and Area

- Sports ground-2700 sqm
- Badminton courts-527 sqm
- Two volleyball courts-360 sqm

- Basketball court-527 sqm

Gymnasium and Yoga Center

- The college has a multi-gym and a range of free weights and aerobic equipments
- Yoga training is arranged in the campus

Clubs

- The college has an ENCON Club, Nature Club, Arts & Sports Club, Yoga Club etc.
- The ENCON club conducts various programs in collaboration with many companies

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.mbits.edu.in/resources/play-ground

4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

20

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in

Lakhs)

4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

31.06382

File Description	Documents
Upload any additional information	View File
Upload audited utilization statements	No File Uploaded
Upload Details of budget allocation, excluding salary during the year (Data Template	View File

4.2 - Library as a Learning Resource**4.2.1 - Library is automated using Integrated Library Management System (ILMS)**

- Name of ILMS software: KOHA
- Nature of automation (fully or partially): Partially
- Version: 19.05.04
- Year of Automation: 2010

File Description	Documents
Upload any additional information	View File
Paste link for Additional Information	https://www.mbits.edu.in/resources/library

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

C. Any 2 of the above

File Description	Documents
Upload any additional information	View File
Details of subscriptions like e-journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	View File

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

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

0.2181

File Description	Documents
Any additional information	View File
Audited statements of accounts	No File Uploaded
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File

4.2.4 - Number per day usage of library by teachers and students (foot falls and login data for online access) (Data for the latest completed academic year)

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

0

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	View File

4.3 - IT Infrastructure

4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

- For the successful teaching-learning process, the college provides a good friendly atmosphere for both teachers and students. College need to ensure good infrastructure by

utilizing those resources in high altitude.

- The college is enabled with uninterrupted internet facility around the campus which contains leased line as well as broadband. All computers are connected over LAN / WAN using Optical fibers and twisted pair cables networked over various buildings using latest networking devices.
- Latest security software suits, Symantec Endpoint Protection which consists of anti-malware, intrusion prevention and firewall features for server and desktop computers.
- Sophos firewall is used to guard internet security threats and controlling data to the internet which includes deep packet inspection, threat management, wireless networking, virtual private networking, network content filtering, application control etc.
- Enrollment for Education Solutions (EES) from Microsoft is an easy cost-effective licensing, which offer the institution with assured coverage of education platform products with one annual user count. The flexibility to add products in any quantity and access to productivity tool and student benefits all under a single, subscription agreement.
- 50% Classrooms are ICT enabled and laboratories are installed with computers accessible to the students for their academic and extracurricular activities. Computers are installed in various HoD rooms, staffrooms, office rooms, examination cells, Principal room, E-library, management room etc.
- Printers and Wi-Fi access points are also installed at the office, library, staffrooms, laboratories, exam cell, hostel etc. Scanners and xerox machines are also available. Wi-Fi access points are provided in the campus to access the network through personal laptops, gadgets, mobility devices etc.
- Laptops are readily available in departments and placement cell, for the conduct of various seminars and workshops.
- E-live campus automation is used for monitoring the student activity continuously. E-Live Campus is a complete online campus management software that extends campus information to teachers, staff members, parents, students and Management. E-Live Campus provides flexible access to users from within the campus, from home or over the public internet - with digital

encryption connecting through college website. The E-Live Campus enables teachers to access student's information from anywhere and parents can access their ward's attendance and academic records.

- Students' feedback is recorded using an efficient online feedback system which is developed by our students.
- Fully responsive website of the college is maintained, which provide information and updates of events and functions happening within the campus visible to world. The website is updated regularly.
- Renewal of AMCs is done for the deployed PCs, software, firewall and website. Webinar sessions are conducted with various organizations, industry experts etc.
- The whole campus is monitored using CCTV surveillance.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Number of Computers

402

File Description	Documents
Upload any additional information	View File
List of Computers	View File

4.3.3 - Bandwidth of internet connection in the Institution

A. ? 50MBPS

File Description	Documents
Upload any additional Information	View File
Details of available bandwidth of internet connection in the Institution	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)

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

558.79232

File Description	Documents
Upload any additional information	View File
Audited statements of accounts	No File Uploaded
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	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.

The physical, academic and support facilities are well maintained using the budget allocated annually.

Laboratory

- Optimum utilization of laboratory resources is ensured by faculty and lab assistants. To avoid risk from viruses, spyware and other external threats, legal antivirus is installed. During the Covid 19 pandemic, virtual labs and google classrooms were utilized.

Library

- In order to provide suitable atmosphere for reading, reading tables and chairs are maintained.

- The maintenance and utilization of library includes maintenance of collections, bar-coding, repair and rebinding of damaged books.

Class rooms

- Institute provides a good physical environment in the form of desks, chairs, tables, space, instructional materials, proper lighting and ventilation as well as the latest ICT equipment.
- During the Covid 19 pandemic, virtual meet and google classrooms were utilized for the smooth conduct of classes and assessments.

Sports

- Regular maintenance of the play area is done a regular basis under the supervision of Physical education faculty.

Canteen

- The Institution runs a fully-fledged canteen under the supervision of faculty where hygienic food is provided, also biogas plant is in function.

Transportation

- Transport in-charge is responsible for allotting the routes and maintains college vehicles and obtains necessary clearance certificates, insurance and permits from the RTA.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.mbits.edu.in/resources

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support	
5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year	
5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year	
174	
File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	View File
Upload any additional information	View File
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	View File
5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year	
5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year	
683	
File Description	Documents
Upload any additional information	View File
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	View File
5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills	A. All of the above

File Description	Documents
Link to Institutional website	https://www.mbits.edu.in/
Any additional information	View File
Details of capability building and skills enhancement initiatives (Data Template)	View File

5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

235

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

235

File Description	Documents
Any additional information	View File
Number of students benefitted by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View File
Upload any additional information	View File
Details of student grievances including sexual harassment and ragging cases	No File Uploaded

5.2 - Student Progression

5.2.1 - Number of placement of outgoing students during the year

5.2.1.1 - Number of outgoing students placed during the year

99

File Description	Documents
Self-attested list of students placed	No File Uploaded
Upload any additional information	View File
Details of student placement during the year (Data Template)	View File

5.2.2 - Number of students progressing to higher education during the year

5.2.2.1 - Number of outgoing student progression to higher education

23

File Description	Documents
Upload supporting data for student/alumni	View File
Any additional information	No File Uploaded
Details of student progression to higher education	View File

5.2.3 - Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)

5.2.3.1 - Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

10

File Description	Documents
Upload supporting data for the same	View File
Any additional information	No File Uploaded
Number of students qualifying in state/ national/ international level examinations during the year (Data Template)	View File

5.3 - Student Participation and Activities**5.3.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year****5.3.1.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.**

0

File Description	Documents
e-copies of award letters and certificates	No File Uploaded
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national/international level (During the year) (Data Template)	View File

5.3.2 - Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

During 2020-2021 academic year, students had active participation in the following Academic and Administrative bodies/committees of the institution.

- College union, IQAC, Alumni Association, Training & Placement Cell, Departmental associations and various other academic committees of the college.
- One boy representative and one girl representative are elected as Class Representatives from each class.
- The Students' Representative addresses and represents students' views and grievances, and as a spokesperson, conveys these to the concerned authorities for discussion and amicable resolution. The Students' Representative provides valuable informal feedback regarding curriculum, teaching learning and evaluation process
- All programmes have class committees for each class and course committees for each course that comprise of student members representing each class, along with faculty members nominated by the Head of the Department, other than the course teacher. During this period class committees were conducted in online mode.
- Students have strong representations in all cultural and sports and games committees and help in organization and management of events. During this year this committees were inactive due to covid-19 pandemic.
- Students provide strong support in the administration and management of hostel affairs. Each hostel has a Captain, Vice-Captain, Mess Committee, Cultural Committee, Sports Committee and Cleanliness Committee. During this year hostels were closed and this committees were inactive due to covid-19 pandemic.
- Students organize extra-curricular events and competitions throughout the year. Students organize Special events and National celebrations that include, Independence Day, Republic Day, Engineers Day, Science Day and various NSS and social service activities.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

28

File Description	Documents
Report of the event	View File
Upload any additional information	View File
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	View File

5.4 - Alumni Engagement

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

The college has a registered alumni unit (MBITSAA) with registration number EKM/TC/408/2019.

Objectives of Alumni Association

- To make the alumni of MBITS stand together to achieve their goals.
- To utilize the experience, wisdom, ability and spare time of former students of MBITS for the benefit of the weaker section of the society.
- To enhance and develop various facilities inside the campus.

Contribution of Alumni Association

- The alumni form the major strength of an institution. MBITS started in the year 2009 and the first batch of students passed out in the month of May 2013.
- An executive committee was constituted in the year 2013 with Principal Dr. M M Paulose as the president and Asst. Prof. Nidheesh Eldho Baby as the secretary.
- Association meets twice in an academic year as it is the flag bearer of the developments in the institution.
- A bank account was opened to receive monetary contributions and do creative spending in a systematic way.
- The most important contribution of the alumni association is that the members share their experience with their junior students.
- The main focus is on acquiring a job and working in diverse

job environments including working out of state, abroad and working in a company handling different portfolios.

- The alumni identified that physical fitness and personality development were very important in addition to subject knowledge in performing well in a job. To fulfill this they came forward to start a gymnasium in the college.
- Alumni felt that the annual expenditure of 20% of the subscription amount, specified in the bye law, was less, and endorsed the increase to 40%.
- They contributed a sum of 1,50,000 rupees for the landscaping and completion of the college front area, which was a dream of alumni, and about 2 lakh rupees for buying chairs for college auditorium
- Besides these financial contributions, alumni actively take part in the overall betterment of available facilities in the institution by giving feedback and taking part in various committees in college such as IQAC.
- To help financially backward students, they made a resolution to make a contribution for giving the scholarship for one student from each branch during every academic year based on academic excellence.
- Dr. Paulose Paulose, MBITS 2013 alumni delivered a lecture to recent passout students.
- In addition to Canada and Germany, MBITS alumni chapters were opened in Australia, Newzealand, UK, UAE and USA.
- Chapter meetings were conducted online with all the committee members

File Description	Documents
Paste link for additional information	https://www.mbits.edu.in/uploads/Alumni/Alumni.pdf
Upload any additional information	View File

5.4.2 - Alumni contribution during the year (INR in Lakhs)

D. 1 Lakhs - 3Lakhs

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

Vision:

To nurture a positive campus culture and equip the younger generation to take our nation forward.

Mission:

- To provide graduate level technical education in the existing or conventional branches as well as newly emerging fields.
- To build up a centre of technical excellence for post graduate studies and research in all fields of human endeavor.
- To help the youth of rural agricultural background to change with times, and join the mainstream of industrial growth and information technology.
- To impart ethical values of our Indian tradition to the future generation

Upholding the motto 'Wisdom Crowns Knowledge', we provide quality higher education at par with international standards.

Our mission aims to provide graduate level technical education in the existing and newly emerging fields.

The students conceive the ideas on modern and emerging trends in Engineering and Technology through national/international webinars, seminars and workshops.

Various State Government programmes like Abatement of Pollution of Muvattupuzha river and ASAP, have been organised in this institute to help the youth in our rural community to join the nation's main streams of development.

In response to the COVID -19 pandemic, Education 4.0 Implementation Committee was constituted. Based on the proposal by E4IC, Google suit was procured to implement LMS for encouraging online teaching through Google platform. The academic activities, administration and e-auditing are currently carried out through LMS which provides easy access and turned out to be a grand success.

Our institute imparts ethical values of Indian tradition to the future generation through activities like Community Service & emergency services in times of distress and by providing technical backup for the needy.

File Description	Documents
Paste link for additional information	https://sites.google.com/mbits.ac.in/lms/home
Upload any additional information	View File

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

RHYTHM 2K21

Decentralization is having a significant impact on policies-planning and management in achieving the programme outcomes. This was materialized by committees functioning at various levels contributed by staff and students. This provided a platform for students to take part in participative management.

MBITS conducted the National level Arts and Technical festival "Rhythm 2k21" from 31st May to 2nd June 2021. Considering the prevalent COVID-19 Pandemic situation, we conducted this festival as an online programme. Under the guidance of the Principal and staff co-ordinators, students, faculty members and research scholars from different institutions participated in Rhythm 2k21 and made it a grand success. Rhythm 2k21 events got enriched with the participation from other institutions, consisting of more than 132 colleges, at national and international level. There were webinars on various subjects, debates, cultural events etc.

The chief guest of the inauguration function was the Honourable Speaker of Kerala Legislative Assembly. Eminent personalities, celebrities and academicians participated in the event. We had interactive sessions with prominent cine actors and celebrities. Both technical and cultural events were included in Rhythm 2k21. MBITS conducted a 4-day webinar series "All in one Tech-Talk series" as part of Rhythm 2K21 from 26th to 29th of May 2021.

File Description	Documents
Paste link for additional information	https://www.mbits.edu.in/activities/art-fest
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

- The development of the college is a constant ongoing process. At every step, the management strives to improve. This is made possible with the help of perspective/strategic plans that chalk out the necessary actions to be taken to grow and develop. The first step towards any real progress is brainstorming ideas. All stake holders of the institution are involved in the process. Their inputs and suggestions are considered while developing the strategic plan.
- The tasks are divided based on their merit and the facilities to fulfill them into three major categories. These are formulated as lists under one year plans, five year plans and ten year plans. Each department has progress to make, which is why every department makes its suggestion to improve the quality of the college. Once the plans are approved by higher authority, every department is instructed to work on their strategic plan to achieve their goal. Constant support from the corresponding departments is offered alongside.

The Institute has following Perspective/Strategic plans:

SHORT TERM (2017 TO 2020)

1. Developing system for practicing engineering & research through training, collaborations and programs.
2. Preparation of institute development plan for academics development.
3. Developing network with industry and institutions.
4. Enhancing network with stakeholders- alumina, parents & academician/industry experts.
5. Initiate accreditation processes for quality enhancement.
6. The placement activities need to be improved.
7. Development of platform for "self-made" multi-faceted professionals (all stakeholders) contributing to the national development.

MID TERM PLAN (2020 TO 2023)

1. Introduce masters and research programs.
2. Development of digital platform for efficient & effective learning.
3. Joint-collaborative research & development projects with the industry & research centres.

LONG TERM (2023 TO 2027)

1. Setting up business activity in collaboration with industry & business.
2. Setting up research center in each domain of engineering programme.
3. Collaboration with research institutes nationally & internationally.
4. Development of Technology search center.
5. Establishment of blended & digital platform for quality in education.
6. Accreditation of the institute (ISO-NAAC-NBA-).
7. 100% placement.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	https://www.mbits.edu.in/uploads/IQAC/files/Strategic_Plan_and_Deployment.pdf
Upload any additional information	No File Uploaded

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.

Mar BaseliOS institute of technology and science (MBITS) is one among the seven ventures under Mar Basil Group of Institutions. The administrative management is controlled by the Board of Directors. The Board of Directors includes Chairman, Secretary and Treasurer, in addition to other six board members. The Advisory Board consists of highly experienced academicians and professionals. Decisions like introduction of new courses, development of infrastructure facilities and other initiatives for improvement of the institution are taken by the governing body. Governing body is the ultimate authority for any decision in the institution. Administrative set up of the institution is as per the organization chart. Governing body

of the institute is headed by the Chairman. Principal is the academic and administrative head of the institution. Service rules have been formulated as per the guidelines of competent authorities like affiliating university and AICTE. The selection of staff to all posts are done by a six-member selection board elected by the parish members from time to time. The representatives of the institution and subject experts are also included in the respective selection committee at the time of interview. Yearly appraisal policy exists for promotion of the staff.

File Description	Documents
Paste link for additional information	https://www.mbits.edu.in/about/about-management#dir-board
Link to Organogram of the institution webpage	https://www.mbits.edu.in/uploads/IOAC/files/Organogram of the Institution.pdf
Upload any additional information	View File

6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Document	View File
Screen shots of user inter faces	View File
Any additional information	No File Uploaded
Details of implementation of e-governance in areas of operation, Administration etc(Data Template)	View File

6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has effective welfare measures for teaching and non- teaching staff

Welfare measures for the employee's include provision for various facilities and amenities in and around the workplace for the betterment of their lives. Employees are the most important asset of an organization and so the institution always gives importance and

support to them.

The various welfare measures practiced are as follows.

For teaching staff

- As motivation, financial aids and duty leaves are provided to attend National / International conferences, workshops, FDPs etc.
- Encourage faculties to pursue for PhD by giving adequate support.
- Personal accident insurance schemes were taken for all employees.
- Festival allowance is given to all staff for celebrating Mar Basil Day (October).
- Transportation facilities are provided for those who are living in the outskirts of town.
- Maternity leave is provided.
- Compensatory off is provided for all extra duties.
- Benevolent fund is initiated for staff.
- During the pandemic period, all staff were permitted to work from home.

For non teaching staff

- Employee Provident Fund (EPF), accidental health insurance and ESI are provided.
- Maternity leave is provided.
- Transportation facility, festival allowance and compensatory off are provided.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

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

0

File Description	Documents
Upload any additional information	No File Uploaded
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

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

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

13

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	View File
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View File

6.3.4 - 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 etc.)

6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

67

File Description	Documents
IQAC report summary	No File Uploaded
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	View File
Details of teachers attending professional development programmes during the year (Data Template)	View File

6.3.5 - Institutions Performance Appraisal System for teaching and non- teaching staff

The self-appraisal system of this institute covers all aspects of academics, administrative and research activities of staff. It is a part of continuing professional development or career advancement.

Evaluation of faculty is done for 3 categories

- Teaching, learning & evaluation related Strategies
- Co-Curricular/Extension/Professional Development
- Research and Academic Contributions

The teaching, learning & evaluation related Strategies are calculated by;

- Lectures, Lab, Contact Hours/University results
- Reading/Instructional material provided, Use of additional knowledge resources for subject enrichment
- Use of participatory and innovative teaching learning methodologies
- Examination duties

Co-Curricular/Extension/Professional Development activities are calculated using;

- Co-Curricular Activities and Extension Activities /Institutional Responsibilities and Contribution To Corporate Life
- Departmental Responsibilities/Professional Responsibilities/ Training Programmes

Research and Academic Contributions are calculated using following

categories;

- Papers in Journals
- Papers in Conference Proceedings
- FDPs attended
- Papers presented in Conferences/Seminars

From all the criteria, an Academic Performance Index (API) score is secured. The completed form is signed by the Head of the Department and then submitted to the principal for further review.

Evaluation of non teaching faculty is done for 5 categories :

- Laboratory Assisting Performance
- Assistance in Value Added Courses organized
- Assistance for Projects by the Department
- Academic Upgradation
- Administrative Support

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

- The Institute is managed by Mar Baselios Educational and Charitable Trust (MBECT), which is functioning under the auspices of Mar Thoma Cheria Pally, Kothamangalam
- The financial accounts of the institute are audited by a statutory auditor regularly on an annual basis from its inception in the year 2009.

- The anomalies; if any; pointed out by the auditor are attended to and rectified during the course of the auditing itself.
- Besides the statutory audit, the Management conducts internal auditing from their side on an annual basis.
- Reports are placed before the annual general meeting of the church, Mar Thoma Cheria Pally and deliberated extensively.
- Corrective actions are taken as per the directions issued from the Managing Committee of the Church.
- Internal Audits of various cells including NSS, EDC etc. are performed by the staff in charge of internal audit periodically.
- Reports are submitted to the corresponding authorities before the external audit.
- The copy of the internal audit report covering all matters related to maintenance of the account is preserved.
- External audit report and its findings are submitted to the management.
- The audit report is consolidated and the annual return is submitted to the Income Tax department.
- It is pertinent to state that the Trust (MBECT) has been granted registration under section 10(23C) and section 12A of the Income Tax Act.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

6.4.2 - Funds / Grants received from non-government bodies, individuals, philanthropers during the year (not covered in Criterion III)

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

163.223

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	View File
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the year (Data Template)	View File

6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

Mobilization

- **Fee collections :**

50% of the sanctioned intake will be allotted by the Commissioner for Entrance Examination. Remaining 50% seats will be filled up by the management, under management quota from the application received at the college office. The Tuition fee collected from students constitutes our major source of income.

- **Term Loan and Hire Purchase Loans:**

Institute is availing Loans from banks at reduced rate of interest by maintaining the liquidity, sound DSCR and Debt Equity Ratios. The Loans are availed through Mar Baselios Educational and Charitable Trust (MBECT).

- **Online Examinations :**

Our institution has been identified as a centre for various online examinations like GRE, NEET, GATE, CAT , RRB and JEE etc. Payments are received for conducting the same.

- **Corpus Donation of Trust and Trust Contribution:**

MBCET gets corpus donations from well-wishers, corporates and philanthropists.

- Funds Received from Govt. and Non Govt. Bodies

Institute receives funds from various Govt. and Non Govt. bodies like AICTE, NAAC etc..

- Alumni Contributions

Contributions of the Alumni are utilized for student development and welfare activities.

- Consultancy Services

The Research & Consultancy cell of our institute receives payments for providing consultancy services to public and private undertakings.

Optimal Utilization

- Recurring Expenses

The fee collected is utilized to meet the recurring expenses such as Salary, Academic activities, loan repayments etc.

- Infrastructural Development and Facility Enhancement

Management allocates budget for infrastructural development and to create and upgrade the facilities in tune with the modern trends to meet our requirements. Bank Loans and corpus donations received from well-wishers and philanthropists are judiciously utilized for the same.

- Maintenance

Maintenance works are carried out to keep the infrastructure operational.

- Upgradation of Lab Facilities

Laboratories are upgraded according to the norms of AICTE and KTU. We

also provide updated software and hardware to the students for excelling in their academics and latest innovative projects.

- **Maintenance of Transportation Facilities**

Funds were utilized for the regular and periodic maintenance of vehicles.

- **Conducting Seminars, Conferences and Faculty Development Programmes**

The institute conducts the above said activities and programmes regularly and in tune with the latest trends & technologies, innovations and research to meet the needs of the society.

- **Purchase of Text books and Subscription of Journals for Library**

Library has a wide collection of 19,000 books and 4780 titles including journals, magazines and non-book materials. The books are classified according to the Dewey Decimal Classification Scheme. College Library also provides e-resources like DELNET, NDL and IETE etc.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	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

- The IQAC of MBITS regularly meets up to discuss and plan activities targeted for the academic growth of students and faculty.
- The cell constantly gives directions to the various engineering department of the institute for the conduct of conferences and FDP.
- As a result, Electrical & Electronics Engineering, Civil Engineering, Mechanical Engineering and Electronics and

Communication Engineering departments conducted webinars and the participation certificates were issued.

- The cell also monitors the progress of the activities in order to make sure that the quality of the program is not compromised.
- This is accomplished by appointing an internal evaluator who will be monitoring the process of selection of papers, transparency in fund management etc.
- The cell also arranges awareness class for the students and staff in order to convey them about the need of technical conferences and FDP.

File Description	Documents
Paste link for additional information	https://sites.google.com/mbits.ac.in/webinar/home
Upload any additional information	View File

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

- Many students require support to meet the objectives of the prescribed curriculum. This support may be in the form of changes in teaching strategies, approaches or materials and may require the support of resource and/or special education teachers.
- During this academic year 2020 - 2021, due to the Covid'19 pandemic situation all the classes changed to online mode. A miniature Learning Management System (LMS) was implemented by the institute using Google products and its extensions.
- Students should also be given the opportunity for self-assessment and be encouraged to evaluate their habits, attitudes, and behaviors with respect to personal growth and academic well-being.
- The institution constantly reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals by suitable strategies like collecting student feedback form for assessing a faculty in terms of his/her academic capability and lecture delivery.
- The institution heads periodically meet up to evaluate the performance of each staff separately with respect to their university results.

File Description	Documents
Paste link for additional information	https://sites.google.com/mbits.ac.in/lms/home
Upload any additional information	View File

6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://www.mbits.edu.in/uploads/IQAC/IQAC.html
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	View File
Upload details of Quality assurance initiatives of the institution (Data Template)	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

At Mar Baselios Institute of Technology and Science equal opportunities are provided to all individuals irrespective of gender, race, caste, religion, or other status.

Safety and Security:

- Precautions have been taken in the campus, canteen, library, and college bus to ensure safety of the students.

- Provided CCTV Surveillance throughout the campus security purpose.
- Faculty members ensure that all girl students leave the campus after remedial classes and cultural events arranged at night.
- College provides separate hostels for girls and boys within the campus.

Curricular and co-curricular activities:

- Women Cell organizes activities for girl students.
- College has constituted an internal complaints committee for handling complaints regarding sexual harassment.
- Anti-ragging cell of MBITS conducts awareness sessions for students on regular basis.
- Every year the college conducts Arts and Sports, in which all the students get equal opportunities based on gender.

Counselling:

- Counsellor is available male and female students and staff for academic and other issues/problems.
- Mentor - Mentee system is adopted as the first step towards confidence building among the students

The institution constituted the following committees as per norms laid by University/UGC:

- Institution Grievance Redressal Committee
- Anti-Ragging, Sexual harassment prevention cell
- Students' Disciplinary Committee
- SC / ST Students Welfare Committee

File Description	Documents
Annual gender sensitization action plan	https://www.mbits.edu.in/uploads/IQAC/files/Annual_gender_sensitization_action_plan.pdf
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://www.mbits.edu.in/uploads/IQAC/files/Specific_facilities_provided_for_women.pdf

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

B. Any 3 of the above

File Description	Documents
Geo tagged Photographs	View File
Any other relevant information	No File Uploaded

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

- **Provided separate dust bins for biodegradable and plastic wastes.**
- **Single sided papers are reused for taking photocopies on a large scale.**
- **Plastic waste is collected and given to vendors on a regular basis.**
- **Metal and wooden waste of laboratories is stored and is being sold to authorized scrap agents.**
- **Incinerator is installed for burning non-hazardous waste.**
- **Biogas plant is implemented to produce energy and dispose**

nonhazardous solid and liquid waste,

- Ensure to avoid water leakage in taps and pipes. Physical presence of pumping authority all the time is assured.
- Waste water is used for horticulture.
- Rain water in the initial rainy period seems to be a waste and it is directed to a pit near the well which further improves the groundwater.
- E-waste from labs is properly collected and is given to a licensed recycler, reusing the parts whichever is possible.
- E-waste collected at the site is transferred for wiping or recycling to the local vendor.
- Students are encouraged to dispose of the e-waste at the collection centre.
- Display boards for awareness of waste management are placed in various parts of the campus.

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	View File
Geo tagged photographs of the facilities	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 Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Any other relevant information	No File Uploaded

7.1.5 - Green campus initiatives include	
7.1.5.1 - The institutional initiatives for greening the campus are as follows: 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
Geo tagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	No File Uploaded
Any other relevant documents	No File Uploaded
7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution	
7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities	D. Any 1 of the above
File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	No File Uploaded
Certificates of the awards received	View File
Any other relevant information	View File
7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage	A. Any 4 or all of the above

including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Policy documents and information brochures on the support to be provided	View File
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	No File Uploaded

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

- MBITS, as a minority institution, values inclusionary practices at multiple levels including its admission policy, where students from diverse cultures are admitted.
- We provide scholarships to encourage inclusion and diversity. Fee concessions are provided to students based on their community and location. Students from educationally backward areas like Wayanad and Idukki are given fee concessions.
- Festivals like Onam, Christmas, Ramzan, Diwali, Holi etc. are celebrated.
- We celebrate and protect cultural, regional, linguistic, communal, socio-economic diversities through various club activities like dance club, music club, film club, women's club etc.
- Arts festival and sports day competitions are conducted in the college every year.
- The college time table has two hours noon interval on Fridays to support students from Muslim community to attend prayers.
- MBITS empowers people from marginalized segments through creating livelihood opportunities towards achieving sustainable development for themselves and their communities(eg: ASAP).

- To support the Government, Covid'19 cell was formed in MBITS.
- Our women's cell engages with cultural, regional, communal, socio-economic and sexual diversities from a variety of gendered perspective. Women Cell conducted a 3- day International Webinar on the topic " Professional Development of Women Engineers in Post Covid Era" in July 2020.

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

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

- MBITS has been committed to educating our students as constitutionally aware citizens sensitized to their Fundamental Rights and Duties. Various programmes and activities are organised by the college in this regard.
- 31st October, birth anniversary of Sardar Vallabhai Patel is observed as National Unity Day to foster and reinforce our dedication to preserve and strengthen the unity, integrity and security of our nation. A pledge taking ceremony was done in the college in this regard.
- Republic day and independence day are celebrated and this helps in creating the spirit of patriotism .
- Various talks on human values are included in the first year induction programme.
- The course HUT 200 PROFESSIONAL ETHICS in the curriculum includes topics like human values, engineering ethics, professionalism etc.
- MBITS has two active National Service Scheme (NSS) units where students engage in community service programmes which help in creating a 'sense of patriotic commitment' for national development.
- To promote the idea of the Swachh Bharat Abhiyan, NSS units of MBITS organised monsoon cleanliness drives in the locality by following covid protocols.
- A programme called 'Thannal' was organised - Each child should plant a tree on their birthday to preserve the environment.
- Energy Audit and Domestic energy surveys were conducted to get an awareness of the energy used in homes and to take active steps to minimise wastage.

- Programmes like stem cell donation awareness, blood donation, palliative care, covid vaccination awareness etc. were conducted.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://www.mbits.edu.in/uploads/IOAC/files/Detail_of_activities_that_inculcate_values.pdf
Any other relevant information	https://www.mbits.edu.in/activities/nss

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. 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 4. Annual awareness programmes on Code of Conduct are organized

B. Any 3 of the above

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

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

- Commemorating days, events and festivals of national importance honors the great heritage of India.
- Every year we are hoisting flags and taking oaths in connection with Independence day and Republic day.
- Festivals like Onam, Holi and Christmas are celebrated every year.

- The National Anthem is played everyday to inculcate the spirit of nationalism.
- Great personalities like APJ Abdul Kalam, Aryabhata, Visweshwarayya, Ramanujan are remembered by giving their names to our Seminar halls and Placement cell.
- On 30th January, Martyr's Day is celebrated by observing two minutes of silence at 11 AM to pay homage to Mahatma Gandhi and for other freedom fighters.
- National Science Day is celebrated on February 28 by poster presentations and Quiz competitions.
- International Women's Day is celebrated on March 8 as a focal point in the movement for women's rights.
- National Technological Day is observed on 14th May with various technical competitions.
- World Environment Day is celebrated on 5th of June every year with a plantation drive to send the message of environmental consciousness.
- Yoga Day is celebrated on 21st June.
- Teacher's Day is celebrated on 5th September for honouring the teachers .
- September 15, the birthday of Dr. Vishweshwaraiah is observed as Engineer's Day.
- MBITS celebrates Gandhi Jayanti on 2nd October to commemorate the birthday of Gandhiji, undertaking mass cleanliness initiatives.
- 31st October, birth anniversary of Sardar Vallabhai Patel is observed as National Unity Day to strengthen the unity, integrity and security of our nation.
- World Ozone day is observed on 16th september to raise awareness and understanding about the consequence of ozone layer depletion.
- World Youth Skill Day is observed on 15th July to celebrate the strategic importance of equipping young people with skills for employment, decent work and entrepreneurship.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	View File
Geo tagged photographs of some of the events	No File Uploaded
Any other relevant information	View File

7.2 - Best Practices

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

Best Practice-1

Title of the Practice: Response to Social Calamities

As a part of continuing to render hands to the society in times of social calamities, we initiated COVID'19 Cell at our college to overcome the ill effects of the pandemic.

Objectives of the Practice:

When the Coronavirus pandemic began spreading across the world just over a year ago, it did not spare any community or society. COVID-19 rapidly caused devastating socio-economic impacts such as income loss, education impacts and health concerns. Basic consumer needs were affected. From school closures to devastated industries and millions of jobs lost - the social and economic costs of the pandemic are many and varied. To support the society as well as higher education COVID'19 Cell was introduced in college.

The Context:

With respect to the order issued by the higher education department of the state (Ref No: G.O.(Rt.) No: 489/2020/HEDN, dated 23/03/2020 to support the Government in fighting against the global pandemic and delivering knowledge to the society, Covid'19 cell was formed in Mar Baselios Institute of Technology and Science (MBITS), Nellimattom, Kothamangalam.

The Practice:

The Covid19 cell and other staff members were involved in many activities for each program such as identification of delegates/resource persons, liaison with major organizations/institutes for possible association with the webinars, invitation of delegates and participants, digital platform configuration, system administration and online hosting/co-hosting, brochure data collection and design, database setup and management of participants invitation, their registration, follow-ups, certificate design and sending serially numbered certificates to individuals, master of ceremony, speakers profile collection and introducing them during the program, moderating, being panel leads/ panel member, digital media handling, press, handling online/chat-box questions and answering (Q&A) sessions, feedback collection, processing, preparing

documents, and participate in a review for continuous improvements.

An overview on various activities conducted by Covid'19 cell in 2020 is depicted below.

1. Mobile Application for data collection and surveillance in association with Pothanica Grama Panchayath, Kerala
2. Disaster Management Application-OSMin association with Govt. of Kerala
3. Sanitiser, Mask and Bedsheet Distribution - External in association with NSS, MBITS
4. CNU Application - Monitoring and mapping in association with IEDC, MBITS
5. Covid'19 First Line Treatment Center in association with Govt. of Kerala
6. E- Learning Competition in association with MBITS
7. Online Course in Basics of Covid-19 in association with NSS, MBITS
8. Economical Foot Sanitiser in association with IEDC, MBITS
9. Blood donation Mobile Application in association with NSS, MBITS
10. National Webinar - 9 No's in association with ASAP (Govt. of Kerala), NIT (Warangal), VSSC (ISRO)
11. International Webinar - 6 No's in association with SMBS (M G University), ASAP, TCS, Accredited Training. Online (Canada), YMCA, (Pothanica), IQAC (MBITS), KSUM (Govt. Of Kerala), Women Cell (MBITS)
12. Faculty Development Program - 3 No's (National/ International) in association with AJCE (Kottayam), Marian College (Kuttikanam)

Activity Description

1. Mobile Application for Pothanica Grama Panchayath, Ernakulam

The Research and Consultancy Cell of the Department of Computer Science and Engineering of the College developed an android app for Pothanica Grama Panchayath, Ernakulam. The app helped in improving the quality of interaction between officials of a Grama Panchayat and its citizens. The application provides the details of the Panchayat, details of officials with their contact details, details of a notification issued by the officials and the services it provides.

2. Open Street Mapping - MAPATHON

MBITS volunteers are participating in the Open Street Mapping which

marks the houses, hospitals, bridges, police station, bus stops, rivers etc. This mapping helped the authorities to a great extent towards rebuilding the area in case it is destroyed by any disaster.

3. Sanitizer Distribution and Mask Making

- Distributed 15 liters of sanitizer to the hospital in St. Joseph's Hospital Kothamangalam, Red Cross Society and various Government offices in and around Kothamangalam Taluk.
- Distributed 100 Masks to the Govt. Homeo Hospital, Muttom, Thodupuzha, Idukki District.
- Volunteers took an initiative to make non-surgical masks. Each volunteer made a minimum of 20 masks by themselves. The prepared MASKS were distributed to the public.

4. Article writing competitions and COVID-19 Mobile Application - CNU

The IEDC conducted an Article writing competition. First prize of Rs 2000 and certificate was awarded to Christie Rose Jose, Newman College, Thodupuzha and the second prize of Rs 1000 and certificate was awarded to Ann Mary Joshy, Viswajyothi College of Engineering, Vazhakulam, Ernakulam.

The Innovation and Entrepreneurship Development Cell (IEDC) of the college had launched a COVID-19 Mobile Application named Covid News Updater CNU. The application will help to know about updated Covid cases all over India. The mobile App. also provides hourly updates in total active Cases, Confirmed Cases, Recovered and Death all over India and States and Districts.

5. Covid'19 First Line Treatment Center (CFLTC)

In the context of Covid 19 pandemic, Department of Health and Family Welfare (H&FW) Government of Kerala has issued advisory on the Covid First Line Treatment Centre (CFLTC) vide order no 31/F2/220/ H&FW dated 28th March. Broad objectives of the CFLTC have been elaborated in these advisories. The LSGI and district administration are directed to identify as many centres as possible for this purpose. Our college hostel was handed over to local administration for free to manage it as CFLTC, until the local situation is manageable till December, 2020.

6. E- Learning Competition

An E-learning Competition was conducted for the students of the

college. The project aimed to find the teacher inside the students. Under this scheme, students in grades 8, 9, 10 and plus two will be given classes online by the college students. A cash award has also been introduced to encourage students. 42 students submitted videos prepared by them and selected videos were uploaded.

7. Online Course in Basics of Covid-19

NSS Volunteer had undergone an online course in Basics of Covid-19 (Malayalam Course) organized by Integrated Govt. Online training portal of Government of India.

8. Distribution of Hand sanitizer Stand

Hand sanitizer stands were donated free of cost to the Government Taluk Hospital Kothamangalam and MBMM Hospital Kothamangalam by the College. It was also distributed to the public at a reasonable cost. It was made in MBITS workshop by the students under the supervision of staff, and the students took initiative in distribution.

9. Blood Donation Mobile Application

The NSS Unit of the college has developed a mobile application for blood donation named JIVANA.

10. National and International Webinars

<https://webinar.mbits.edu.in>(Details and Videos are uploaded).

Mar Basellos Institute of Technology [MBITS], Nellikattom P.O., Kothamangalam, Kerala is embarked on conducting webinars online, with the sole objective of making social impact by knowledge sharing, in partnership with Industry, Academia and various Government departments and corporates in India and abroad. A total of 11 Webinars were conducted and digital certificates were distributed.

Webinars were telecasted on Facebook live and other platforms like Zoom and WebEx. Participants were from different states and many other countries like USA, Canada, Africa.

Eminent people like Vice Chancellors, Government Officials, Ministries, MNC companies, Government Bodies, IITs, NITs, private Colleges students, faculty, research scholars, industry professionals and Academicians participated in various webinars.

Evidence of Success:

Covid cell formation leads to significant development of college along with social commitment.

Some appreciations are listed here.

- Dr. Veena N. Madhavan IAS, CEO, ASAP & Additional Secretary, Higher Education Department, Government of Kerala.
- Dr. S. Somanath, Director, VSSC, ISRO.
- Dr. N V Ramana Rao, Director, NIT, Warangal
- Dr. V. Barla, Director, Centre for Applied Research, Hyderabad, India.
- Dr. Rupa N M, Ministry of the Interior and of Decentralization, Government of Madagascar.

Problems Encountered and Resources Required:

We plan to organize additional initiatives, particularly for the development of students and faculty of the country. Extra focus shall be given for improving diversity, quality of intake, enhancing NIRF ranking, improving digital pedagogy, and contributing more to NBA and NAAC accreditation. We are committed to work along with the University, AICTE, UGC and Government, in their initiatives to develop the country and the citizens.

Best Practice-2

Title of the Practice: Learning Management System

Objectives of the Practice:

Millions of learners were affected by educational institution closures due to the pandemic, which resulted in the largest online movement in the history of education. With this sudden shift away from classrooms in many parts of the globe, universities had to rapidly shift to virtual and digital strategies. Many believe that the adoption of online distance learning will persist after the pandemic.

The Context:

Education 4.0 makes learning more accessible using dynamic teaching materials to keep students interested. Students being able to log in any time and from anywhere to learn at their own pace. Education 4.0 is truly revolutionary in terms of improving student learning

outcomes. Oftentimes, the learning is personalized to the student's interest in Education 4.0. Through the use of technology, students have better access and relationships with their various stakeholders in the system.

The Practice:

An E4IC committee was constituted in the college in March 2020 to develop online pedagogy strategy, establish a new process, train the staff and students and monitor the online / offline content delivery through various online platforms. For encouraging accelerated remote learning, we constituted the Education 4.0 implementation committee (E4IC), with representations from all departments chaired by the Principal of Mar Baselios Institute of Technology and Science (MBITS), Kothamangalam, Kerala. This committee consists of the Principal as head, one nodal coordinator and a coordinator from each department along with another one member from each department and Technical members for implementing LMS (Learning Management System). Initially, the committee proposed online classes through platforms like ZOOM, Google Classroom, CISCO WebEx etc. Later, this committee has done a performance evaluation of various platforms. The team periodically analysed and reviewed the progress of online/ offline teaching, including a survey at the early part and a second survey by the end of May 2020. Corrective measures were taken after the initial survey and regular weekly meetings of the Academic Committee further strengthened the new process. The survey data for all courses was collected from engineering students to evaluate the effectiveness of various parameters of the Digital teaching and learning process.

The team periodically analysed and reviewed the progress of online/ offline teaching, including a survey conducted at the early part and a second survey by the end of May 2020. Corrective measures were taken after the initial survey and regular weekly meetings of the Academic Committee further strengthened the new process. The second survey with 1802 sample set of data for all courses was collected from engineering students to evaluate the effectiveness of various parameters of the Digital teaching and learning process.

Evidence of Success:

A five-point Like scale with 1 being low and 5 with high satisfaction was used in the survey.

- Effectiveness :Score 1 = 10.8%, Score 2 = 12.8%, Score 3 = 35.2%, Score 4 = 25.5%, Score 5 = 15.6%, Sum of Score 3, 4 & 5** =

76.3%

- Promptness of Faculty :Score 1 = 3.7%,Score 2 = 7.3%,Score 3 = 32.5%,Score 4 = 33.6%,Score 5 = 22.9%,Sum of Score3, 4 & 5** = 89%
- Online class rating* (*12.9% classes were offline) :Score 1 = 7.7%,Score 2 = 13.8%,Score 3 = 27.4%,Score 4 = 23.9%,Score 5 = 14.4%,Sum of Score3, 4 & 5** = 65.7% (Second Lowest Score)
- Course Material :Score 1 = 4.1%,Score 2 = 7.2%,Score 3 = 35.5%,Score 4 = 34.6%,Score 5 = 18.6%,Sum of Score3, 4 & 5** = 88.7%
- Clarity of faculty :Score 1 = 4.4%,Score 2 = 6.3%,Score 3 = 32.6%,Score 4 = 34.9%,Score 5 = 21.7%,Sum of Score3, 4 & 5** = 89.2%
- Voicing of Opinion :Score 1 = 9%,Score 2 = 11.3%,Score 3 = 34.1%,Score 4 = 27.8%,Score 5 = 17.8%,Sum of Score3, 4 & 5** = 79.7%
- Assignment/ Homework :Score 1 = 5.7%,Score 2 = 9.3%,Score 3 = 37.9%,Score 4 = 32.1%,Score 5 = 15%,Sum of Score3, 4 & 5** = 85%
- Internet connectivity :Score 1 = 16.4%,Score 2 = 21.3%,Score 3 = 32.7%,Score 4 = 20.9%,Score 5 = 8.7%,Sum of Score3, 4 & 5** = 62.3% (Lowest score)

Problems Encountered and Resources Required:** Sum of Scores 3, 4, and 5 is considered as a reasonably acceptable percentage, being the first experience in exclusive digital pedagogy for students and faculties. However, a large window for improvement exists, and we are committed to strive for excellence by implementing a continuous improvement process and ensuring its compliance. The lower level of internet connectivity (62.3%) has a tremendous influence on many attributes in the real teaching and learning paradigm.

7.3 % of students suggested online mode teaching only, 31 % recommended offline, and 61.8 % proposed that the teaching-learning shall be a mix of online and offline together. 85 % of students observed that the speed of online presentation is about right, 7% suggested that it's not applicable as some material was given offline and the remaining 8 % equally proposed either slow or fast. 55% of the respondents used Zoom, 39.6 % used Cisco WebEx, and 31% used Google classroom / Google Meet. It's observed that more than one online platform was used in a course.

File Description	Documents
Best practices in the Institutional website	https://www.mbits.edu.in/uploads/IQAC/files/Best_Practices2.pdf
Any other relevant information	https://sites.google.com/mbits.ac.in/webinar/home

7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

Dissemination of Knowledge through Internet

MBITS embarked upon conducting webinars online with the objective of making social impact by knowledge sharing. Several webinars were conducted in partnership with industry, academia, government departments and corporates in India and abroad. Webinars were streamed in multiple platforms like Zoom, Facebook, WebEx to reach out to maximum number of people.

Participants were from almost all states of India and countries like USA, Canada, Middle East and Africa. Eminent people like Vice chancellors, Government officials, Ministries, MNC companies, Academicians, Government bodies participated along with faculties of IITs, NITs, private colleges, research scholars, industry professionals and students.

Webinars covered diverse areas such as quality enhancement and sustainability in higher education institutions, future of engineering education, outcome based education, how to turn engineers to entrepreneurs, communicative engineering skills for engineering students and faculty, how to get research grant from UGC, enhance online teaching skills.

MBITS conducted 36 national and international webinars in the 2020-21 period attended by about 17000 participants from 1800 institutions. The institution was listed in the New code of education compendium 2021 by Wheebox and received Edufuture excellence national award in 2021 under the category outstanding innovation by engineering institute by Zee media.

File Description	Documents
Appropriate web in the Institutional website	View File
Any other relevant information	No File Uploaded

7.3.2 - Plan of action for the next academic year

- Make an assessment of various quality initiatives and activities held in the college and ensure the quality sustenance and suggest improvement if any. (Internal audit).
- Take feedback on general functioning and facilities in the College.
- Give special attention to improve the academic results of all classes.
- Monitor the remedial classes and give suggestions if required.
- Take steps to enroll maximum number of students for Minor and Honours and monitor the progress of those students.
- Encourage the Placement Cell to have more number of placements.
- Plan Value education classes in a systematic manner.
- Finalize the plan of actions of various cells and clubs for the next academic year including budget proposals.
- Take steps to give orientation sessions on various topics / practices to teachers and non-teaching staff.
- Give suggestions to improve the sports and games activities
- Address the recreational / welfare activities of the staff members with special attention to overcome the mental trauma caused by the Covid -19 pandemic.
- Give suggestion to make the administrative office more effective and student friendly.
- Fine tune the Outcome Based Education and accelerate the NBA accreditation process.
- Focus on Environmental sustainability and Environment protection.
- Conduct gender audit and green audit.
- Calibration of lab equipment and instruments.
- Revamp Alumni activities.