



**Mar Baselios Institute of Technology and Science
[MBITS]**



**REPORT
Of
Strategic Planning Workshop**

Organised by
**Internal Quality Assurance Cell (IQAC)
&
Planning and Development (P&D)**

Held on 22nd August 2022

Facilitated by
Bose Joseph, Assistant Professor

Table of Contents

1. BACKGROUND.....	3
2. PREPARATORY REPORT	4
3. ENROLMENT BREAK UP SECTOR-WISE FOR THE YEAR 2021-22	4
4. BRANCH-WISE ADMISSION FIGURES OF MBITS IN THE LAST 4 YEARS	5
5. DEMAND VS SUPPLY CURVE IN ENGINEERING EDUCATION	5
6. ENGINEERING SEATS IN KERALA – SECTOR WISE	6
7. FINAL YEAR ENGINEERING RESULT ANALYSIS – 2022.....	6
KEY INDICATORS.....	7
8. PROCEEDINGS OF THE WORKSHOP	7
9. SWOT ANALYSIS – CATEGORISATION	8
10. ABSTRACT OF SWOT FINDINGS	9
GOAL	9
MAJOR AREAS.....	9
<i>Infrastructure.....</i>	<i>9</i>
<i>Intellectual Capital.....</i>	<i>9</i>
<i>Course offerings & Admission Screenings.....</i>	<i>9</i>
<i>Processes and systems.....</i>	<i>9</i>
<i>Branding & marketing</i>	<i>10</i>
<i>Co-curricular activities</i>	<i>10</i>
11. ROAD MAP FOR THE FUTURE	10
13. WAY FORWARD	11
14. LIMITATIONS & CONSTRAINTS OF THIS REPORT.....	12
15. ANNEXURE – I	13

1. Background

Engineering colleges in general and Self Financing Engineering Colleges (hereafter referred to as SFCs) in the state of Kerala are passing through a tough situation because of the high volatility between the demand and supply of engineering seats. The trend curve shows a sharp decline in the past few years which was further fuelled by the low level of economic activities due to the Covid pandemic.

With 169 affiliated institutions in Kerala offering around 43,000 seats in 38 disciplines, the supply exceeds 50% of the demand. Self-Financing Colleges (SFCs) are facing major challenges for survival with a low level of intake. Few SFCs funded by corporate educational agencies can sustain even while operating below breakeven level.

The only way to endure this crisis is to transform ourselves into a Centre of Excellence and stand at the Tier -I level in terms of academic performance and placement opportunities. This will help us to stand as a 'College of Choice' eventually leading to demand creation.

The coming few years are very crucial for us. At present, we are performing reasonably well among other colleges and stand in the 45th position out of 131 colleges (All pass results in the final exam of KTU 2022). But, this is not enough to attract enough admissions.

In the above context, a brainstorming discussion was organised jointly by the Internal Quality Assurance Cell (IQAC) and Planning & Development (P&D) on 22nd Aug 2022 to formulate the strategies for elevating our institution to the frontline. The following members including the Principal, Deans, HODs and IQAC members have participated in the workshop.

List of attendees

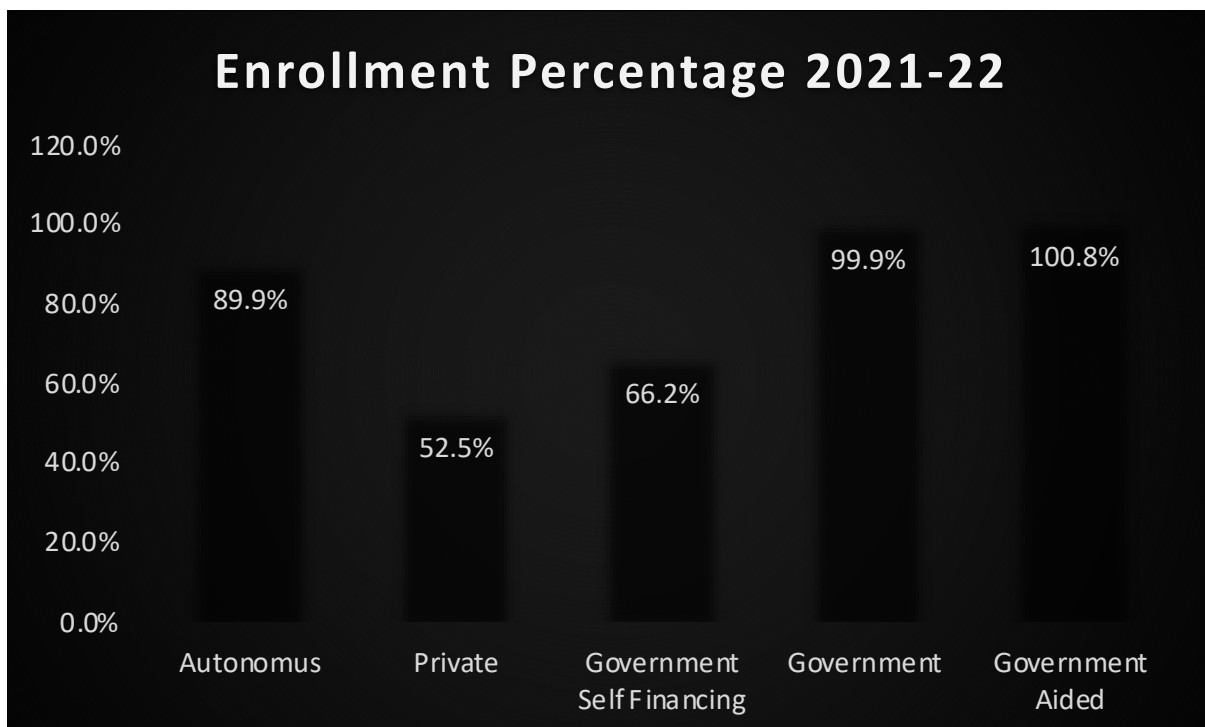
1. Dr P Sojan Lal, Principal
2. Dr Solly George, Dean Planning & Development and Chairman, IQAC
3. Prof Leena Thomas, Dean of Academic and HOD(EEE)
4. Mrs Manju George, HOD(CE)
5. Mr Needesh Eldho Baby, HOD(ME)
6. Mrs Sherin Thomas, Acting HOD(ECE)
7. Mr Midhun Mathew, HOD(CSE)
8. Mr Siju Jacob, HOD(S&H)
9. Mrs. Bonia Jose AP – CSE
10. Mrs Lincy P Elias, AP(S&H)
11. Mr Chethan Roy, AP (ME)
12. Ms Deepthi Varkey, AP (CE)
13. Mr Thomas George, AP (EEE)
14. Mrs Soumya Markose, AP(ECE) & Joint Coordinator IQAC
15. Mr Jenty Joy, Training & Placement Officer

2. Preparatory Report

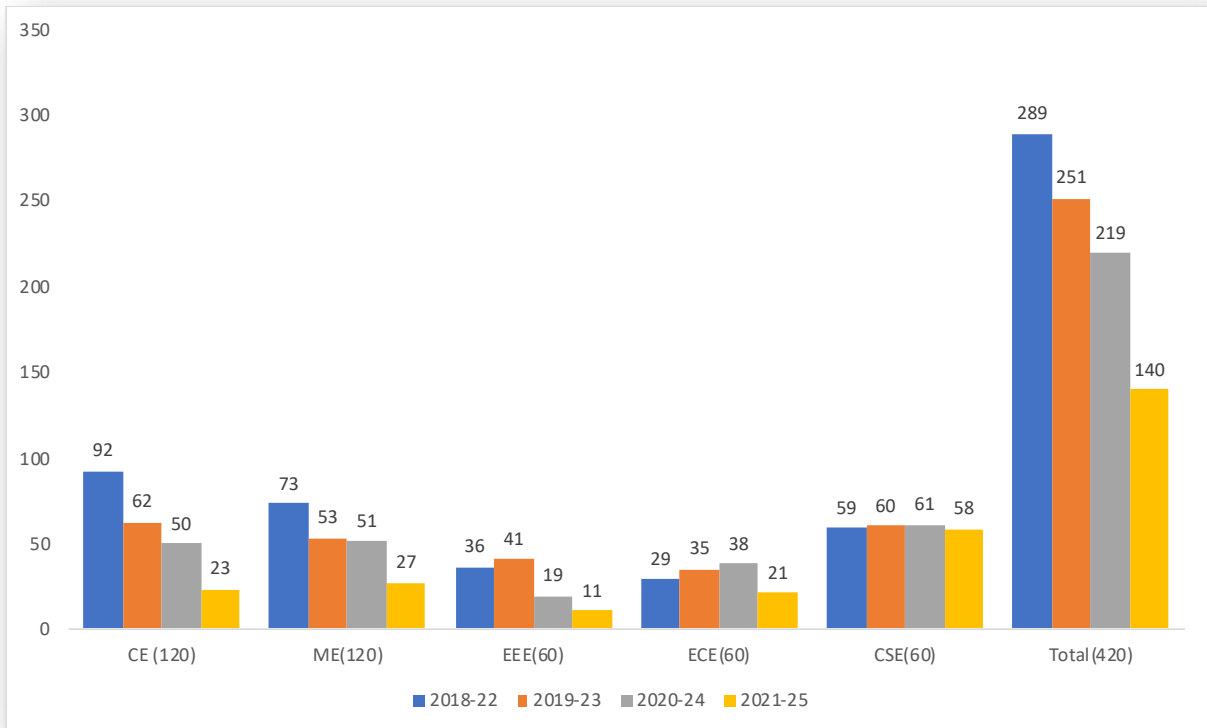
A macro environment study has been conducted by the facilitator Mr Bose Joseph to identify the trends in demand and supply of engineering seats in Kerala during the last 4 years. The findings were presented to the participants to give a clear idea about the current positioning of MBITS, challenges to overcome, opportunities to explore, weaknesses to be worked on and to mitigate the threats. The key findings are illustrated through the infographics below.

- Self-Financing Engineering (SFCs) are facing a tough business challenge in India.
- Kerala had 50% seats vacant in the last academic year 2021-22
- Consistently falling Intake - MBITS had only 33.33% (66.77 % vacant) intake in the last academic year 2021-22, less than the state average.
- MBITS Stands at the 45th position out of 131 colleges – 2022 final exam results.
- MBITS is not able to generate sufficient revenue to manage the day-to-day needs of running the institute with the current intake.
- Demand for engineering courses particularly in conventional branches is declining year by year (reversal will be slow)
- Most of the students are seeking admission in CSE or new generation courses.
- If we operate in the current mode, our survival is in question

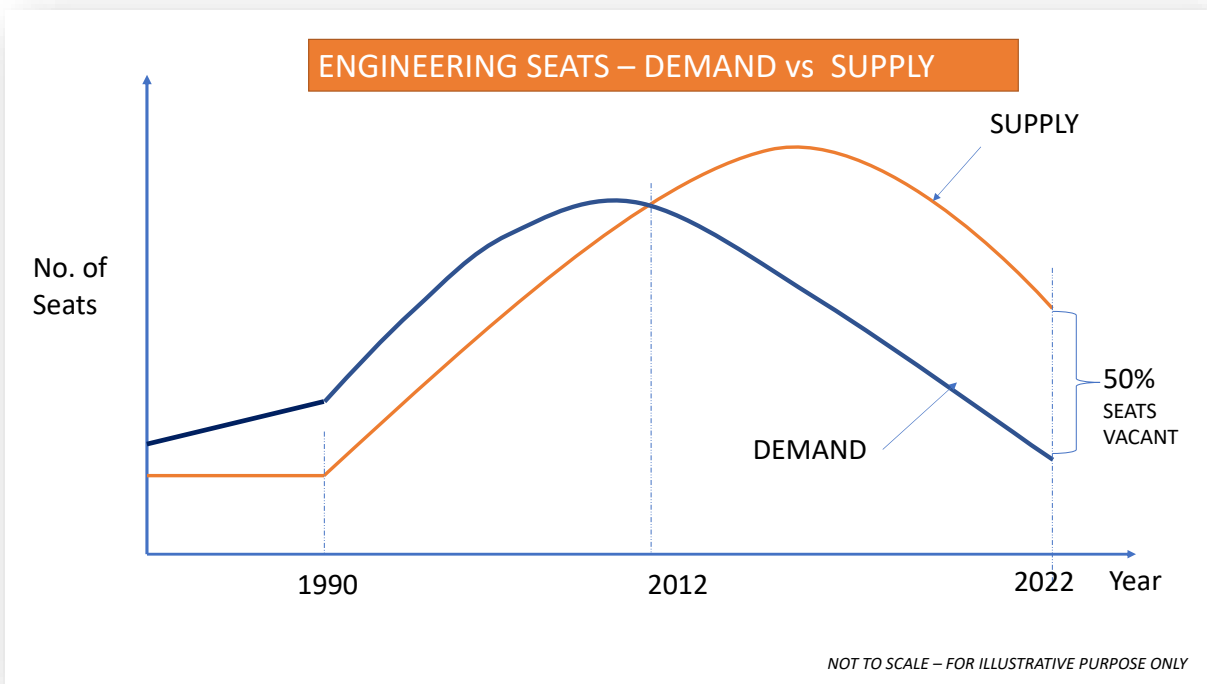
3. Enrolment Break up sector-wise for the year 2021-22



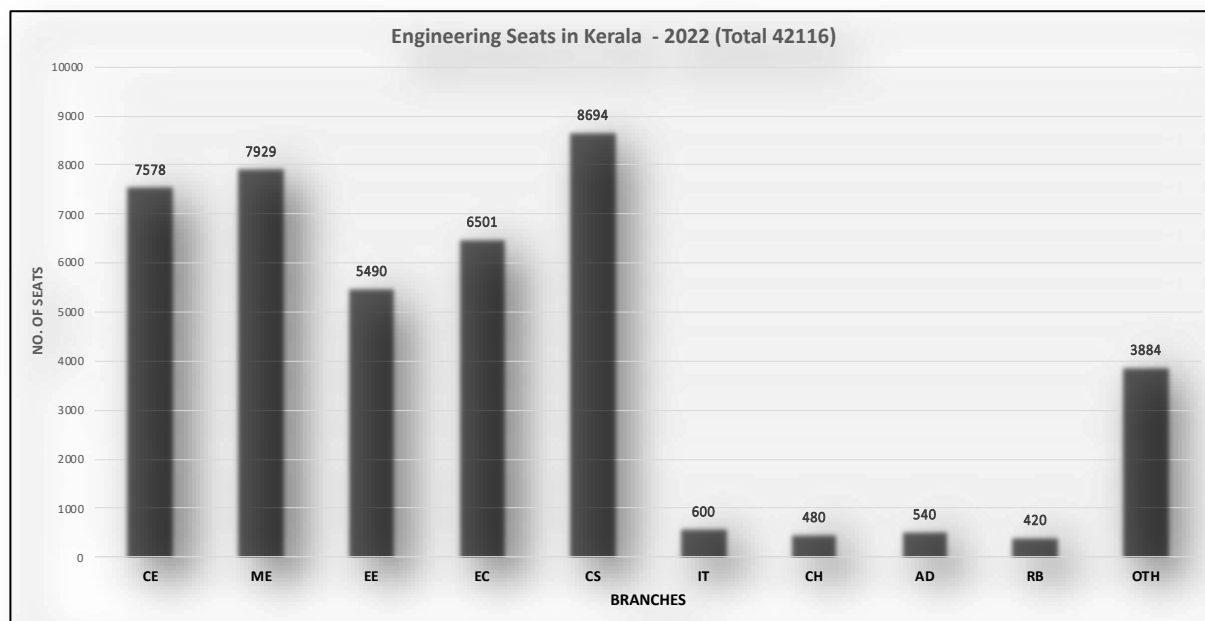
4. Branch-wise admission figures of MBITS in the Last 4 years



5. Demand vs Supply Curve in Engineering Education



6. Engineering seats in Kerala – Sector wise



APJ Abdul Kalam Technological University

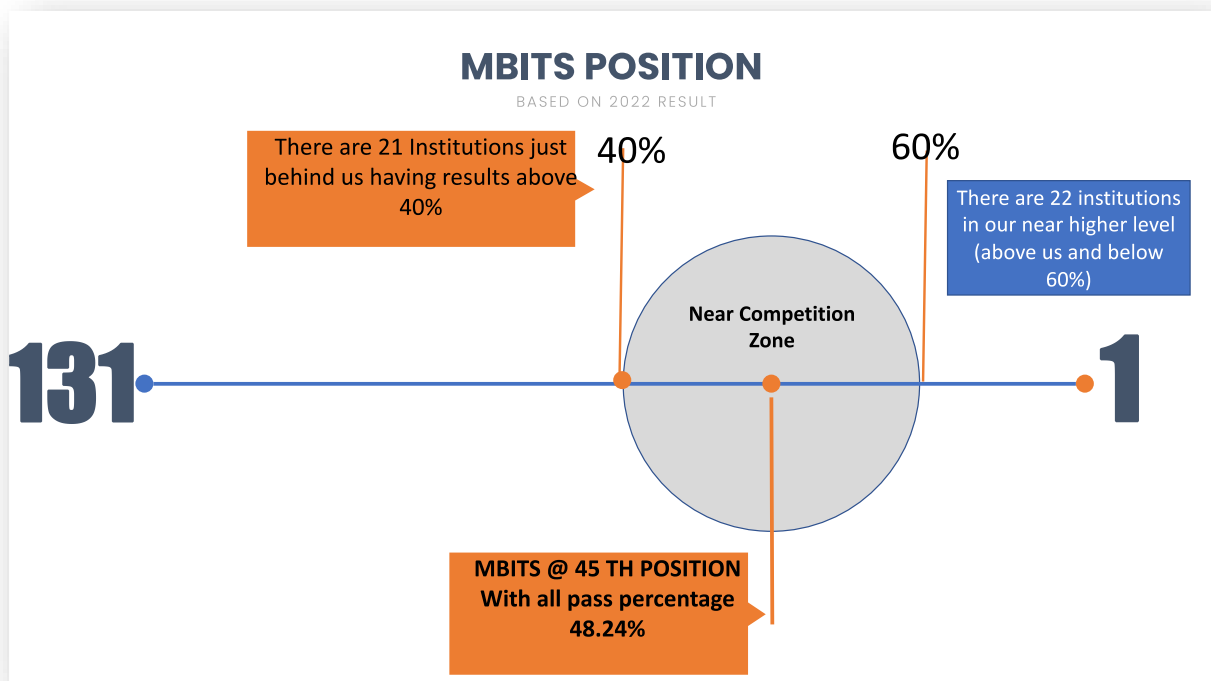
7. Final Year Engineering Result Analysis – 2022

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY - BTECH FINAL RESULTS JULY 2022			
Category	Above 70%	Above 60%	Above 50%
NBA Accredited (SFC)	2	6	13
NBA Accredited (GOVT &AIDED)	6	8	11
NBA Not Yet Accredited (SFC)	1	4	8
NBA Not Yet Accredited (GOVT &AIDED)	2	4	8
Total	11	22	40
Intake Strength (SFC)	1211	3665	5947
Intake Strength (GOVT & AIDED)	4257	5372	7393
TOTAL INTAKE	5468	9037	13340

- 35 colleges out of 131 are NBA accredited. 19 are SFCs
- Altogether they have a pass rate of 61.5% (7922/12876)
- NBA accredited SFCs (19) have a pass rate of 55.93% (3824/6833)
- NBA accredited Govt./Aided colleges have a pass rate of 67.5% (4098/6043)
- 10 SFCs – Not having NBA accreditations are having better results than us and 63 are behind us

Key Indicators

- We are at the borderline – top 30 percentile
- If we can push ourselves to the top 10 percentile – survival is possible.
- An accelerated business transformation model is to be designed and implemented to succeed in this intense competition.
- Kerala has a steady demand of around 25,000 seats per year – which might be growing in the coming years
- The Continuous Improvement philosophy is to be implemented to build MBITS as a Centre of Excellence (CoE) to stand out in the crowd sustainably.
- NBA accreditation is just the next miles stone in the continuous improvement journey. That's Not enough to build MBITS as CoE.



8. Proceedings of the Workshop

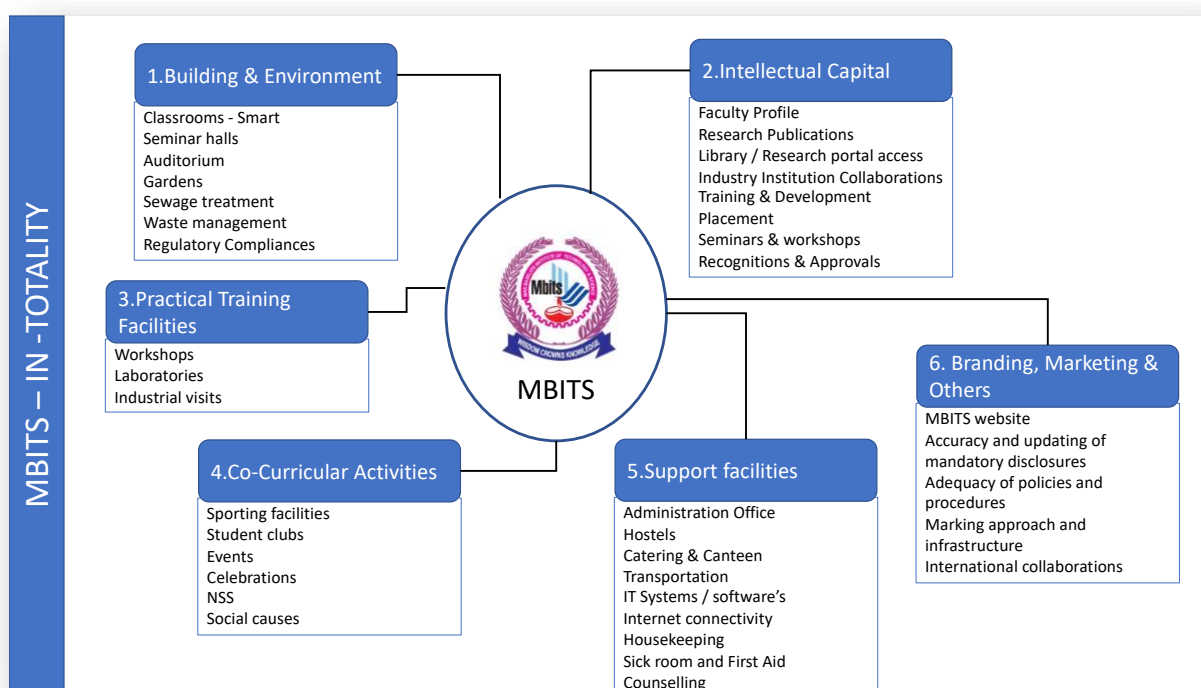
The Strategic Planning Workshop was held at APJ Hall on 22nd Aug 2022 from 09:30 AM to 03:00 PM. Dr Solly George welcomed the participants and Principal Dr P Sojan Lal delivered the opening address. Bose Joseph, Facilitator then took over the session and shared his business analysis findings about engineering education in Kerala. He has given the guidelines for a SWOT analysis of MBITS and emphasised the importance of everyone's active participation.

Later, participants were formed into 3 teams and each team is asked to conduct a SWOT analysis on two areas as listed below.

Team 1	Team 2	Team 3
Building & Environment Intellectual Capital	Practical Training Facilities Co-Curricular Activities	Support Facilities Branding, Marketing and others
<ol style="list-style-type: none"> 1. Mrs Manju George, HOD CE (Team Leader) 2. Dr. P Sojan Lal, Principal 3. Dr Solly George, Dean Planning & Development and Chairman, IQAC 4. Mrs Lincy P Elias, AP SH 5. Ms. Deepthi Varkey, AP CE 	<ol style="list-style-type: none"> 1. Mr Midhun Mathew, HOD CSE (Team Leader) 2. Prof. Leena Thomas, Dean Academic and HOD, EEE 3. Mrs Sherin Thomas, Acting HOD ECE 4. Mr Chethan Roy, AP ME 	<ol style="list-style-type: none"> 1. Mr Needesh Eldho Baby, HOD ME (Team Leader) 2. Mr Siju Jacob, HOD SH 3. Mrs Soumya Markose, AP ECE & Coordinator IQAC 4. Mr. Thomas George, AP EEE 5. Mr Jenty Joy, Training & Placement Officer

Teams gathered separately for an hour and come up with their findings. Team leaders presented their findings to the participants. Mr Bose Joseph made his observations on the findings of the team. Mrs Soumya Markose expressed the vote of thanks and the workshop was concluded at 03:00 PM.

9. SWOT Analysis – Categorisation



10. ABSTRACT OF SWOT FINDINGS

Goal

To build MBITS as a **Centre of Excellence** in Engineering education becoming an **Institution of Choice** for engineering aspirants in the next 5 years.

Major areas

Infrastructure

Spacious land and ample building area are the strength of the campus. Regular maintenance and housekeeping standards need to be improved. Fire & safety compliance of the building is to be considered on priority. A 'green campus' concept is to be aimed for the future by sweeping away wasteful inefficiencies and using conventional sources of energy for its daily power needs, correct disposal handling, purchase of environment-friendly supplies and effective recycling program.

Intellectual Capital

Though we have a pool of committed faculty members they need to be empowered and facilitated to focus on their core mission. Faculties who are passionate about teaching and willing to explore innovative and effective teaching methods should be rewarded adequately and retained. The policies and programs to upbring the morale and enthusiasm of the faculty members are highly important in transforming an institution into a Centre of Excellence. A high rate of faculty turnover will negatively impact academic delivery.

Course offerings & Admission Screenings

1. The present overall intake of 300 seats in the B-Tech programme needs to be maintained by changing the branch quota based on demand.
2. The last 4 years' steady decline in the demand for conventional branches would result in a shortage of engineers countrywide in future bringing back the demand. Hence further reduction in these branches is not advisable even if we are not able to fill up the entire quota (60 seats) in the coming few years.
3. Can apply for the MCA programme which is demanding right now as there is only a limited investment is further required.
4. PG programmes might be continued for accreditation purposes but should consider switching to more demanding programs.
5. It is quite common to welcome all admission seekers to fill up the intake quota but it may have a detrimental impact on achieving our goal. The applicants who haven't had a minimum level of academic standard would result in a bad turn-out ratio affecting the institution's goodwill. Therefore, proper filtering is recommended though we may need to survive with lean volume for the coming few years.

Processes and systems

A comprehensive review of all policies, transactional processes and procedures is to be done through the START, STOP, CONTINUE methodology. This would help to make it clear, simple and straightforward minimising the time and wiping off ambiguity.

Employee and student data processing needs to be fully automated urgently. Quality time of faculty members is now spared for data entry (duplicate entry also) which really impacts their teaching quality. MIS is to be designed and made available to top management on set frequencies for fast and data-based decision-making.

All supportive functions need to be thoroughly evaluated for their financial feasibility and appropriate actions need to be taken to curtail the costs. In this context, the transport facility needs to be reviewed urgently.

Branding & marketing

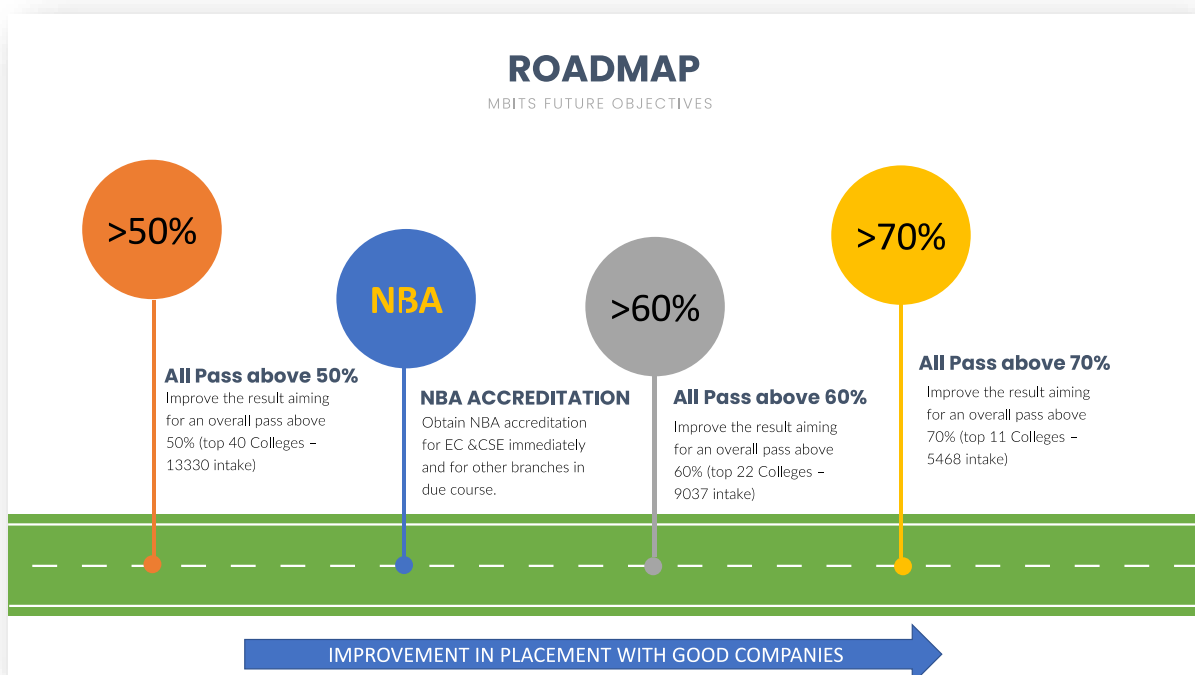
MBITS have a visible presence in social media, local channels etc. but its website and LinkedIn pages need enhancements and regular updates.

Co-curricular activities

Co-curricular activities are energising on post-Covid recovery. Major events and celebrations are hosted with staff and student participation. Students should be put on the front line to lead and organise the programs and staff presence should be more on guidance and direction role. It is visible that few faculty members are overloaded by managing the events thus affecting their teaching assignments. We have to be prudent in keeping an effective balance between Academic and Co-curricular activities bearing in mind that academic excellence is of prime importance.

11. Road map for the Future

A step-by-step approach needs to be devised for uplifting the institution to a CoE with clear milestones in between. Given below is a road map to bring the institution to the top 10 percentile in the state.



12. Post Workshop Report & Presentation

The draft report of the strategic planning workshop has been presented before the IQAC body on 22nd September 2022. Mr. C. A Kunjachan, Secretary to the Board of Directors also had attended the presentation. Brief discussions and interactions on various SWOT outcomes were happened. Finally, participants proposed to categorise suggestions based on **Priority (Importance)** and **Financial Commitment** scale.

A half day meeting had been held in the following week with Principal, Dean Planning & Development and Mr. Bose Joseph, the facilitator to categorise the proposals based on the following matrix. Above committee has gone through each items and marked its priority and financial commitment on subjective basis. A detailed list of those items are attached as Annexure- I of this document.

		FINANCIAL COMMITMENT			
		NIL (F0) <small>(No expenses or might be some savings/earnings)</small>	LOW (F1) <small>(<50K)</small>	MEDIUM (F2) <small>(50K-2L)</small>	HIGH (F3) <small>(>2L)</small>
PRIORITY / URGENCY	LOW (P1)	F0/P1	F1/P1	F2/P1	F3/P1
	MEDIUM (P2)	F0/P2	F1/P2	F2/P2	F3/P2
	HIGH (P3)	F0/P3	F1/P3	F2/P3	F3/P3

13. Way forward

These findings should be jointly reviewed by the Principal and Dean, Planning & Development and shall be presented to the Board of Directors for discussions and approval for developing a SMART action plan for the selected areas.

It is recommended to implement the proposals as soon as possible as the competitors also will be trying to implement many improvements. The list consists of short term and long term goals as well as items to be implemented on high priority. It is suggested to implement all items within a span of 3 to 5 years.

14. Limitations & Constraints of this Report

The macro-level business scenario presented in this report about engineering education in Kerala is based on the limited data available from the following entities;

1. APJ Abdul Kalam Technological University
2. All India Council for Technical Education
3. Office of the Commissioner of Entrance Examinations, Kerala
4. National Board of Accreditation (NBA)
5. Various media reports and Government Press releases.
6. The study report of a few NGOs

The participants of the strategic planning workshop are considered as a true representation of all faculties. The proposals mentioned below against each area are a consolidation of the outcome of the SWOT analysis and some critical business observations of the facilitator. Therefore, this report is not claimed to be a complete analysis, however all major areas are taken into consideration.

15. Annexure - I

Sl. No.	Cat. Matrix	Item Code	Proposals
1	F3P3	1.1.2	Provide high-strength WIFI in all classrooms and seminar halls
2	F3P3	1.5.1	A sewage treatment plant should be constructed to comply with the responsible use of water. Recycled water can be used for watering plants and thereby reducing water consumption.
3	F3P3	1.7.1	Fire and Safety compliance is to be followed in all buildings and obtain building number
4	F3P3	2.1.1	More number of PhD holders are to be appointed either full-time or part-time.(1:2:6 ratio to be maintained)
5	F3P3	2.1.2	Existing faculties should be encouraged and facilitated to do a PhD.
6	F3P3	2.8.1	We should try for NBA accreditation and better ranking in ARIIA/NIRF
7	F3P3	7.1.4	Salary rationale across the board to be ensured.
8	F3P3	5.5.4	Youtube connectivity in classrooms to play animated videos to teach technical concepts easily.
9	F3P3	6.1.1	Web site team needs to be proactive to ensure that all the latest events and achievements are published on time and obsolete contents are removed on expiry. They also should be vigilant about the accuracy of the contents. Upgradation of website .
10	F3P3	6.5.2	MBITS is located at the entrance to high ranges and there aren't many institutions in the district of Idukki offering Engineering education. We have to focus on this target population in advance, offering free career guidance programmes/entrance coaching orientations at all major higher secondary schools, Technical and Vocational higher secondary schools .Tech Olympiad.
11	F2P3	1.1.1	Fix permanent LCD projectors in all live classrooms
12	F2P3	1.1.4	Conduct periodic inspection and maintenance of all classrooms (lights, fans, switchboards, curtains, walls, furniture, etc. (Inspection of classrooms and seminar halls was done by a team led by Ms Deepa Mathai recently and the report is available now)
13	F2P3	1.1.7	Uninterrupted power supply (UPS/ generator) should be ensured.
14	F2P3	1.1.8	Ceiling leakage at the St. Thomas block needs to be done.
15	F2P3	1.4.4	All vehicle access roads should be tarred or concreted.
16	F2P3	2.1.3	Performance-driven work culture needs to be cultivated. For that, a good performance management system should be implemented. Employees should be rewarded for their valuable contributions to the institution.
17	F2P3	2.1.5	Send faculties to attend external training programmes/seminars/expos in their disciplines.
18	F2P3	2.4.1	Adjunct faculties from industries should be more often engaged to interact with students to give them an idea about the challenges in their future careers and to understand their expectations from them.
19	F2P3	2.5.6	Enforcing mandatory participation in Club activities from the first year onwards.
20	F2P3	2.6.1	We need to reach out to more reputed companies to increase the job opportunities and higher level CTC offers.
21	F2P3	3.1.1	Scheduled preventive maintenance should be carried out in all labs and workshops. Maintenance records need to be maintained in all departments.
22	F2P3	3.2.1	Obsolete tools, instruments, equipment, and simulators should be discarded or upgraded.
23	F2P3	3.2.2	Damaged/ broken down ones should be repaired and restored.
24	F2P3	4.1.1	A great level of improvement is suggested by the students. The football ground needs to be levelled and maintained neatly. Facilities of other sports and games facilities also need to be improved.
25	F2P3	4.2.1	Student clubs need to be reactivated. A formal orientation about all clubs should be given at the beginning of the first semester and students must be asked to join any one of the clubs mandatorily.
26	F2P3	4.3.2	NSS units are very dynamic at MBITS. More programmes need to be organised to uplift the life of a local community.
27	F2P3	6.5.1	A proactive marketing plan should be framed and rolled out this year.
28	F1P3	1.4.1	Regular maintenance of gardens needs to be ensured.
29	F1P3	1.4.2	Hostel courtyards (LH &BH) needs to be maintained.
30	F1P3	1.6.2	The drinking water facility must be relocated from the toilet to a clean and hygienic space.

Sl. No.	Cat. Matrix	Item Code	Proposals
32	F1P3	2.1.4	More FDP should be done to enrich the teaching quality.
33	F1P3	2.1.6	Faculties must be facilitated and supported to focus on their core responsibilities. They should not be overloaded with administrative tasks that impair their teaching quality.
34	F1P3	2.2.1	Faculty members should be recognised and rewarded for patents and publications in an indexed journal.
35	F1P3	2.3.1	Convenient access must be given to the faculties to IEEE /electronic journals / subscribed research websites.
36	F1P3	2.4.2	Explore collaboration with more industries/Institutions like IIT,IISc, IIIT,IIM's, NIT, Universities etc. and sign off MoUs for product development, production jobs, internships etc.
37	F1P3	2.5.1	More focused attention is required to professionally groom our students to build their confidence level and to succeed in recruitment processes thereby enhancing the employability of MBITS graduates. A few options could be:Giving repeated practice aptitude tests in the final year.
38	F1P3	2.5.2	Conducting soft skills training.
39	F1P3	2.5.3	Conducting Mock interviews and Mock GDs.
40	F1P3	2.5.4	Giving awareness about various competitive exams and career channels (IES/MBA/GATE/Public Sector companies etc.)
41	F1P3	2.5.5	Offering Add- On courses on demanding specialisations in the respective branch of study.
42	F1P3	2.7.1	More on-campus seminars are to be organised branch-wise with eminent scholars, industrialists and entrepreneurs.
43	F1P3	3.2.3	Procure necessary tools, instruments, devices, and equipment that are required to deliver the practical training as per the revised syllabus.
44	F1P3	3.3.1	Industrial visits should be organised in such a manner to attain their intended objectives rather than a mere leisure trip.
45	F1P3	4.5.1	It is recommended to involve students in uplifting the lives of marginalised and poor people through various initiatives like Offering special classes for the children in remote interior schools, Repairing houses, Providing community infrastructure, Setting up a small library, and Offering hand skill training.
46	F1P3	7.1.2	The employee handbook needs to be reviewed in compliance with prevailing laws.
47	F1P3	7.1.5	The salary band and grading system are to be designed and implemented.
48	F1P3	7.1.6	A formal exit interview needs to be done and recorded in the personal file.
49	F1P3	7.1.7	The formal performance management system is to be implemented.
50	F1P3	5.6.2	Trained first aiders list to be publicised in the notice boards and also to be available in all departments.
51	F1P3	5.6.3	Generic medicines should be available with hostel wardens.
52	F1P3	5.7.2	Improve awareness of counselling services .
53	F1P3	6.2.2	Ensure that credible recognitions and awards are propagated.
54	F0P3	2.1.7	All documentation processes need to be examined thoroughly and duplication of work should be curtailed.
55	F0P3	2.1.8	Engage in consultancy and funded projects
56	F0P3	4.3.1	MBITS usually celebrates almost all major festivals and national days and hosts major college-wide events as well. More students should be included in the leadership role and staff members' involvement should be limited to providing guidance and facilitating.
57	F0P3	7.1.3	Salary should be distributed on time.
58	F0P3	7.1.8	A formal probation review needs to be held for new joiners after the probation period
59	F0P3	7.1.9	The workload of every employee needs to be assessed periodically and ensure fair distribution.
60	F0P3	7.1.10	The job description needs to be framed for all unique job positions and should be shared with job holders.
61	F0P3	7.1.11	Structured induction and orientation programme for new employees needs to be developed and implemented

Sl. No.	Cat. Matrix	Item Code	Proposals
62	F0P3	5.2.1	Hostel administration including the food should be brought under a committee with student representation.
63	F0P3	5.3.2	Recommended to have dress code for canteen staff. (EXISTING BUT TO BE INSISTED) - TO BE CHECKED
64	F0P3	5.3.3	Enhance cleanliness and hygiene of Kitchen and dining area
65	F0P3	5.4.1	Alternate options should be considered to operate student transport financially viably. Adequate measures should be taken to minimise the loss.
66	F0P3	6.3.1	Mandatory disclosures need to be reviewed periodically for content accuracy.
67	F3P2	1.3.1	Permanent fans should be fixed.& Ceiling
68	F3P2	1.3.2	Permanent light and sound system could be provided.
69	F3P2	1.3.3	Sound Echo problem should be rectified by fixing appropriate interior panels.
70	F3P2	1.4.6	Bus parking shed/area between buildings should be relocated and this space should be considered a courtyard space.
71	F3P2	5.5.1	Software configuration should be upgraded
72	F3P2	5.5.2	Campus-wide Wi-Fi connectivity (MBITS WiFi) is to be provided. Internet continuity should be ensured
73	F2P2	1.2.1	Interior furnishing of seminar halls should be done.
74	F2P2	1.4.3	It is recommended to have more indoor plants.
75	F2P2	1.4.5	Rear side gardens/courtyard needs to be improvised.
76	F2P2	1.6.1	A higher capacity bio-gas plant should be commissioned AND MAINTAINED PROPERLY
77	F2P2	7.1.1	Proper HR Management systems need to be implemented.
78	F2P2	6.6.1	Needs to develop collaborations with international institutions
79	F1P2	1.1.6	Improve classroom ambience - side wall should be filled with inspirational quotes, creative quotes, pictures of important personalities belonging to the same discipline, Famous icons related to the branch, sceneries etc.
80	F1P2	5.6.1	On-call doctor/ nurse service is to be ensured with some local clinics working 24/7. Service of consulting physician on weekly basis is to be ensured.
81	F1P2	5.7.1	Telephonic/online consultation is also to be offered for students
82	F1P2	6.4.2	A policy mapping has to be done and necessary policies needs to be developed and implemented where ever it is necessary.
83	F0P2	4.3.1	More commercial sponsorship should be sourced to conduct those events in breakeven mode.
84	F0P2	5.1.1	A Facilities Management department should be formed and an expert Civil engineer needs to be appointed to take care of the Repair, Maintenance, New constructions, Housekeeping, Gardening, and Security services of the entire campus. Single-point accountability should be there to plan, schedule, coordinate and check the housekeeping activities.
85	F0P2	5.2.2	A food committee must be formed with student participation and the mess should be administered through a dividing system.
86	F0P2	6.4.1	All existing policies should be reviewed for its relevance and periodical updating.
87	F3P1	1.1.5	At least one classroom per branch should be provided with SMART boards.
88	F3P1	1.7.2	Statutory compliances should be ensured in all types of employment. (CHECK ?)
89	F2P1	1.1.3	Replace all black boards with whiteboards
90	F2P1	5.3.1	Air-conditioned dining facility for guests. (PARTIALLY DONE)
91	F2P1	5.5.3	Higher configuration Laptops to be provided in specific areas.