

Progress Report for the Academic Year 2021-2022

(01 July 2021 to 30 June 2022)

Submitted to



UNIVERSITY GRANTS COMMISSION
Government of India

By



MAR BASELIOS COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous College affiliated to APJ Abdul Kalam Technological University)
Mar Ivanios Vidyanagar, Nalanchira, Thiruvananthapuram-695 015, Kerala

July 2022

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1. About the College, Vision, Mission

Mar Baselios College of Engineering and Technology (MBCET), Thiruvananthapuram, Kerala was established in 2002 by the Malankara Catholic Educational Society of the Major Archdiocese of Trivandrum of the Syro Malankara Catholic Church, under the Holy See, with the noble objective of providing quality technical education that epitomizes noble values as well. The College is affiliated to the APJ Abdul Kalam Technological University and has been conferred with the Autonomous status by the University Grants Commission (UGC) in July 2020 and University and has notified the same in September 2020. The College is accredited by NAAC with 'A' Grade (CGPA: 3.13) since 2016 and is valid till 31 December 2025. All the B.Tech Programmes are accredited by NBA since 2016.

During the year under report (2021-2022), the College has offered five B. Tech Programmes in five branches, namely CE, CS, EC, EE and ME, each with an intake of 120 seats and five M. Tech Programmes in five specializations each with a sanctioned intake of 18 seats. The College is an approved Research Centre under the affiliating University. There are roughly 2000 students enrolled for the various Programmes spread across the Departments during the year under report.

Vision:

To be an Institution moulding globally competent Professionals as epitomes of noble Values.

Mission:

To transform the Youth as technically competent, ethically sound and socially committed Professionals, by providing a vibrant learning ambience, for the welfare of humanity.

2. About Autonomous Status

UGC has conferred the Autonomous Status in July 2020. APJ Abdul Kalam Technological University has notified the conferment of Autonomous Status in September 2020. The Autonomy was granted by the UGC for a period of 10 years (2020-21 to 2029-30). The College is looking at Autonomy as an opportunity to offer the Programmes with greater flexibility and relevance, with a view to further improve the quality of education and for achieving academic excellence. The College continues to be affiliated to the APJ Abdul Kalam Technological University. So, the degrees will be awarded to the students by the University based on the recommendation of the College. The name of the College will be mentioned in the Degree Certificates. The College Management has constituted the statutory bodies like Governing Body, Academic Council, and the Boards of Studies as per the extant rules and regulations, in October 2020. The meetings of these bodies have been conducted regularly. First batch of students were admitted to B. Tech and M. Tech programmes under autonomy through the approved admission process and the classes were started in November 2020. The Second batch was admitted in October-November 2021. The first batch of M. Tech students under autonomy will be graduating shortly in 2022-2023.

3. Academic activities undertaken

3.1 Results -2017-2021 B. Tech Batch

Despite the pandemic conditions that prevailed in the State from March 2020 onwards, the B. Tech students have performed well in the academics. The 2017-2021 batch has graduated during the year under report. The following Table A shows the overall pass in the different Programmes.

Table A Pass Percentage of the 2017-2021 B. Tech Batch

Branch	Total Number of Students appeared	Number of Students Passed in First attempt including Revaluation	Pass Percentage
CED	114	91	79.82
CSE	115	74	64.25
ECE	79	58	73.41
EEE	75	53	70.6
MED	126	80	63.5
Overall Pass	509	356	69.94

3.2 Curriculum Design and Development

Pursuant to the conferment of the Autonomy, the College has undertaken the curriculum design and development in 2020-2021 itself. In order to enable a smoother transition, the same curriculum of the affiliating University was adopted and suitable changes were made in the syllabi and regulations. The factors considered during the design of the curriculum were (i) the curricular structure of the affiliated university (KTU), (ii) the Model curriculum prescribed by AICTE (iii) recommendations by the Industry Experts and Alumni and (iv) the relevance of the topics in the context of recent advances in technology. Same curriculum was followed for the 2021 Admission batch as well because there were three curricular schemes were running, namely (a) KTU 2015 scheme, (b) KTU 2019 scheme and (c) the Autonomy scheme and it was necessary to ensure proper delivery in all the schemes, without a heavy burden for the faculty.

The Institution is practicing Outcome Based Education (OBE) from the academic year 2014-2015 onwards for all Programmes. Accordingly, each of the B. Tech/M.Tech Programme is pivoted on its Programme Educational Objectives and the Programme Specific Outcomes. We have adopted the general Programme Outcomes specified by the National Board of Accreditation (NBA) as such, while we have added the Programmes specific objectives coined

by our own team for each of the Programmes. Each individual course in the Curricula has its Course Objectives/Course Outcomes (CO). We use the Bloom's Taxonomy to specify the level of learning attainment expected on an average basis for each CO, as required under OBE

The process of curriculum design is as follows:

- (a) One faculty/group of faculty formulates the syllabus of a course as per the Curriculum framework.
- (b) External experts and the Department Advisory Board are also consulted while formulating the syllabi.
- (c) The draft Curricula for each Programme shall be prepared by the Department and shall be thoroughly discussed in the respective Department and also in the College Council. The final draft will be approved by the College Council.
- (d) The draft curricula approved at the College level would then be placed for discussion and approval by the Board of Studies (BoS) of the Department/Programme. The BoS has University's nominees, Expert faculty from the leading academic Institutions, along with the Internal Faculty. The suggestions given by the BoS members are incorporated in the draft Curriculum and the BOS then recommends the Curriculum for approval by the Academic Council (AC). BoS is constituted as per the UGC Guidelines 2018.
- (e) Academic Council which examines the proposed Curricula and grant the approval is constituted as per the UGC Guidelines 2018
- (f) The Curriculum is implemented with the permission of the Governing Body.
- (g) Continuous monitoring of the academic progress is done by the HoDs and Deans and the matters of concern are brought to the College Council/BoS.
- (h) The College Council oversees the academics and discipline on a day to day basis.

Note: A discussion on the revision of the M. Tech Curricula was started in 2021-2022. This is to be implemented in 2022-2023. Drastic changes are expected to be brought in to facilitate Industrial Internships, Research based projects, etc.

3.3 Students' Achievements

Under the guidance of the faculty, our students have performed well in academics, research, co-curricular and extracurricular activities. Following Table B shows the enumerated achievements.

Table B- Achievements of the Students

Sl No	Department	Number of Achievements
1	CED	6
2	CSE	40
3	ECE	20
4	EEE	25
5	MED	7

4. Research activities undertaken

4.1 Funded Projects

Academic research is promoted in multiple ways so as to synergize the research interests of both faculty and the students. The Management has instituted an intramural funding scheme for seeding the research and it is still continuing. The scheme is intended to promote a culture of research among faculty. The scheme is known as **In-house R&D projects**, which have the potential to be developed for further research and development activities so that the faculty can go for extramural funding from the funding agencies. Funds for eight projects have been sanctioned during the year 2021-2022 and are tabulated in Table C below.

Table C In-house R&D Projects sanctioned during 2021-2022

#	Name of the Principal Investigator/ Co Investigator (if applicable)	Title of the Project	Dept. of PI and Co-PI	Year of Award	Funds provided (INR)	Duration of the project
1	Sijo M. Saji, Ann George	An experimental study to evaluate the performance of open graded friction course using hot mix and warm mix technology	CED	2021	96500	1 year
2	Ms. Anjali S., Ms. Vinny Pious	Automated multi parameter-based fruit grading using machine intelligence techniques	CSE	2021	10000	1 year

3	Ms. Jisha Jose, Dr. Shini Renjith	An IoT based Secure smart farming	CSE	2021	64500	1 year
4	Ms Shilpa George	Design and implementation of wireless battery management system in electric vehicles	EEE	2021	1,02,80	1 year
5	Ms Keerti S Nair	Control design and stabilization of a rotary inverted pendulum	EEE	2021	10,000	1 year
6	Dr Rajesh T N, Mr Vishnu Asok J S	Development of engine management system for a single cylinder engine	MED	2021	57500	1 year
7	Dr. Veena Nair	Task Complexity in Second Language Writing: An analysis using Natural Language Processing Techniques	S&H	2021	20,000	1 year
8	Dr. Vidya Vilas	Phytosynthesis of bioactive Metal-Metal oxide Nanocatalysts Using Essential Oil of Cymbopogon citratius (Lemongrass)	S&H	2021	1,00,000	1 year

A number of proposals have been submitted for funding from external Funding agencies and organizations. 30 research projects worth a total amount of Rs 48.16 Lakhs are currently in progress. The majority of the funding is provided by the organizations such as DST and KSCSTE. In addition, a number of projects are funded by the affiliating University (APJKTU) also.

Under the perspective plan for the period 2022-2027, the College shall endeavor to establish Centres of Excellence for promoting focused R&D. Collaborations with the Industries shall also be explored for the areas like Artificial Intelligence, IoT, Electric Vehicles, Advanced Manufacturing, etc.

Table D List of Externally funded Projects in progress during 2021-2022

Sl. No.	Name of the Principal Investigator/ Co Investigator (where applicable)	Title of the Project	Name of the Funding agency	Type (Government / Non-Government)	Department of Principal Investigator/ Co Investigator	Funds provided (INR in lakhs)	Month and Year of receiving the grant	Duration of the Project
1.	Ms Akhila A M	Review of Probable Maximum Flood (PMF) of Idamalayar Dam in the Periyar River Basin	KSCSTE-STUDENT PROJECT	Government	CED	0.1	Jan 2022	6 months
2.	Dr Jisha S V	Ground vibration isolation with waste materials as barriers	KSCSTE-STUDENT PROJECT	Government	CED	0.1	Jan 2022	6 months
3.	Dr. Jisha S. V. (PI) and Dr. M. Satyakumar (Co-PI)	Evaluation of the performance of ultrathin white topped pavement incorporating geosynthesis	APJAKTU - CERD-STUDENT PROJECT	Government	CED	0.17	June 2021	1 year

4.	Dr Neethu Roy	Development of a flexible pavement design strategy for highways considering the effect of dynamic loading	APJAKTU - CERD-STUDENT PROJECT	Government	CED	0.26	June 2021	1 year
5.	Dr. Jisha S. V. (PI) and Dr. M. Satyakumar (Co-PI)	Performance Evaluation of Ultra- thin White Topping Overlays	Kerala State Council for Science Technology & Environment (KSCSTE)	Government	CED	3	August 2020	Two years
6.	Dr. Neethu Roy	Influence of Polymer Dosage and Nature of Bitumen on the Micro Structural and Rheologic al Characteristics of Polymer Modified Binders	Science and Engg. Research Board, DST	Government	CED	27.995	June, 2018 and January, 2021	Three years

7.	Dr. Jisha S. V.	Seismic Soil Structure Interaction Response of Structures Subjected to Pounding	CERD, APJAKTU	Government	CED	0.63	March 2019	Three years
8.	Ms. Poorna B R	Healthcare recommender system using hybrid filtering technique	CERD, APJAKTU	Government	CSE	1	Funding awaited	1 year
9.	Ms. Poorna B R	Augmented Reality Integrated Smart Math Solver	KSCSTE	Government	CSE	0.1		6 MONTHS
10.	Ms. JISHA JOSE	Animal Trespassing Detection System	KSCSTE	Government	CSE	0.1		6 MONTHS
11.	Ms. Dhanya L.K	Implementation of an Intelligent Chatbot using Deep Reinforcement Learning	KSCSTE	Government	CSE	0.1		6 MONTHS

12.	Dr JISHA JOHN, Aswathy RAVIKUM AR	Accident Alert system	KSCSTE	Govern ment	CSE	0.03	Feb 2022	MONTHS
13.	Dr Tessy Mathew	Lung cancer detection	KSCSTE	Govern ment	CSE	0.03	Feb 2022	6 MONTHS
14.	Ms Elizabeth Varghese	Fire Extinguishing Drone	KSCSTE	Govern ment	EEE	0.1	Oct 2021(y et to be comple ted)	6 months
15.	Ms Jomole Joseph P	Public Health Transport Information System for Visually Impaired People	KSCSTE	Govern ment	EEE	0.1	Oct 2021(y et to be comple ted)	6 months
16	Ms Manju Sreekumar	Pisces Care Bot	KSCSTE	Govern ment	EEE	0.1	Oct 2021(y et to be comple ted)	6 months
18	Dr. Muraleedha ran Nair K	An extensive study on self- sustained oscillation of open, closed, rectangular and rounded cavity	CERD, APJAKTU	Govern ment	MED	2	March 2018	3 years
19.	Dr. Rajesh T N	Design and development of a rehabiitat ive aid for spastic feet	CERD, APJAKTU	Govern ment	MED	0.325	June 2021	1 year

20.	Dr. Rajesh T N	Design and development of a centrifugal super charger for lean super charging of a single cylinder S I engine	KSCSTE	Government	MED	0.1	December 2021	1 year
21.	Dr Nidhi MB	Oxygen concentrator (Technology transferred from KTU)	TVS	Non-Government	MED	0.25	Oct-21	8 months
22.	Dr. Premchand V.P.	Design Analysis and Fabrication of a Flapping Wing Ornithopter with elliptical wing configuration	KSCSTE	Government	MED	0.1	December 2021	1 year
23.	Dr Krishna Mohan GP	DJMol Opensource modeling program (Linux)	IKST Bangalore	Non-Government	S&H	3	May 2021	2 years
24	Dr Tessy Mathew	Identifying texting idiolects using transformers	CERD, APJAKTU	Government	CSE	0.1	June 2021	1 year

25	Mr. Arun J S	Voice Actuated Backrest for Paralysis Palliation	CERD, APJAKTU	Government	ECE	0.09	June 2021	1 year
26	Ms. Lani Rachel Mathew and Ms. Amritha B.J	Speech therapy system for Cleft Lip/Palate Patients	CERD, APJAKTU	Government	ECE	0.11	June 2021	1 year
27	Mr. Arun J S	ROS based autonomous hospital assistant robot	CERD, APJAKTU	Government	ECE	.26	April 2022	1 Year
28	Dr. M J Jayashree and Ms. Amritha B.J.	Gesture controlled stair climbing wheelchair	CERD, APJAKTU	Government	ECE	.26	April 2022	1 Year
29	Dr. Jayakumari J. and Mr. Sherry Varghese George	Development of IoT based energy autonomous parking sensor device	CERD, APJAKTU	Government	ECE	.15	April 2022	1 Year
30	Dr. Jayakumari J Dr. Sreedevi P Ms. Teena Rajan Mr. Shiras S N	IRS assisted millimetre wave communication for 6G	In collaboration with Universiti Teknologi Malaysia	UTM-MBCE T	ECE	\$10000 ≈ 7.5	March 2022	2 years

Some more faculty members from the various Departments have received approval as PhD Supervisors under the affiliating University. Currently there are **18** Research Supervisors from different departments, guiding **13** PhD scholars.

4.2 Publications

College has been promoting publication of the research results by granting incentives like, reimbursement of registration fee, travel support, cash awards for publications in peer reviewed journals with good citation indices, etc., With such an increasing focus on research, the faculty from the departments have published 90 research papers during the academic year under report that include both reputed Journals and International Conferences. The numbers of publications by departments are as follows. See Table E:

Table E- Department wise Research Publications

Sl No	Department	Number of Publications
1	CED	12
2	CSE	22
3	ECE	23
4	EEE	28
5	MED	10
6.	S&H	5

4.3 Institute-Industry Relations

The College is situated in the capital city of the State and is well accessible due to the excellent connectivity by road, rail and air. Also, that the campus has the history in the education of about seven to eight decades. The high reputation leads to the linkages with Industries quite easily. The College maintains the associations with the Industries through multiple ways and modalities, viz.

- Industry personnel in the Governing Body as stipulated under the UGC Guidelines
- Presence of Industry experts in the Department Advisory Board
- Industry sponsored projects and internships for students
- Invited lectures by Industry personnel
- Campus Placements
- Focused R&D and internship activities through MoU
- Faculty Training and Research funding

Table F below shows the list of industries with whom the MoUs have been established afresh and the existing MoUs have been renewed during 2021-2022.

Table F List of MoUs with Industries

Sl No	Name of the Industry/Agency with whom the MoU is signed with	Date	Duration	Initiated by
1.	Accubits	19 July 2021	1 Year	CSE
2.	Renewal of MoU between MBCET and ICT Academy Kerala	01 August 2021	1 Year	CSE

3.	Tata Elxsi Ltd.	25 February 2022	3 years	EEE
4.	Vydyuthi Energy Services (Startup of the Alumni)	03 December 2020	continues till both parties agree to end it	EEE
5.	VinVish Technologies Pvt. Ltd	30 September 2021	Open ended	ECE
6.	Renewed the MoU with National Institute of Speech and Hearing	09 March 2022	3 years	ECE
7.	Maven Silicon, Bengaluru (VLSI training institute)	07 April 2022	3 years	ECE
8.	Renewed the MoU with BSNL RTTC, Trivandrum	19 May 2022	1 year	ECE
8.	M/s Wadhvani Foundation for Entrepreneurship Development Training	8 December 2020	Annual	Corporate Relations
9.	GTech μ Learn, Technopark Trivandrum (Consortium of IT Companies of Kerala)	12 February 2021	2 Years	Corporate Relations for Internships
10.	Acsia Technologies	16 December 2021	2 Years	Corporate Relations
11.	Infosys Campus Connect	17 December 2021	2 years	Placement
12.	HLL Lifecare Ltd	19 February 2020	5 years	MED
13.	CDAC(T)	27 May 2022	3 years	CSE, EEE, ECE
14.	IBM India Private Limited	22 Dec 2020	3 Years	College

4.4 Other Research activities

The other Research activities undertaken during the reporting year are listed below.

(A) With the aim of providing good quality education and research facilities, the Department of Civil Engineering has added the following instruments to the laboratory.

Table G New Laboratory equipment

Sl No	Equipment	Laboratory	Amount (in Rupees)	Purchase Date
1.	Vickers Hardness Testing Machine	Material Testing lab	Rs. 2,66,680	31-03-2022

2.	High end PC 30 Nos	Central Computing facility	Rs 26,78,010	26-4-2022 & 27-4-2022
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(B) A Report on Traffic Volume Study in connection with the preparation of DPR for Integrated Development of Coastal Highway with Cycle Track in Thiruvananthapuram, Kollam and Alappuzha District was submitted to National Transportation Planning and Research Centre (NATPAC) an Institution of Kerala State Council for Science, Technology and Environment on 08 October 2021. Members of the CED faculty and a number of students were involved in the survey.

4.5 Collaborative/Interdisciplinary Research Works and other Projects

Traditionally, the College has been promoting interdisciplinary research. These are given a new focus under autonomy so that more innovative solutions could be developed. Following Table H shows the activities undertaken during the reporting year.

Table H List of Interdisciplinary Research Activities

Sl. No	Name of the Principal Investigator/ Co Investigator (if applicable)	Name of the Funding agency	Year of Award	Duration of the project
1.	Devipriya, RS Diya, Shon J. Das, Asha S., Shibu V.S., Gayatri, Indu V.	CDAC	2021	One year
2.	Dr. Tessy Mathew, Dr. Jisha John, Dr. Jesna Mohan (Dept. of CSE), Ms. Deepa P.L (Dept. of ECE) and Dr Sanjeev V Thomas (Retd Professor of Neurology (Sr. Grade) Head of the Department of Neurology SCTIMST) Malformation Risk Prediction with Machine Learning Modelling for Pregnant Women with Epilepsy	Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST)	2021	One year

5. Administrative activities including meetings of Statutory Bodies

The Governing Body, Academic Council and the Boards of Studies, and other statutory bodies of the College have been meeting on a regular basis. The College Council meets more frequently to address the day to day matters.

The various committees and the advisory boards at the Department level meet regularly to

address various matters related to curriculum, examinations, research, networking and so on. A quick overview for the reporting year is given below.

5.1 Governing Body - Meetings and Members & Co-opted members

URL: <https://mbcet.ac.in/governing-body/>

Dates of Meetings

Governing Body Meetings- Dates with Time	
1	10.02.2021, 10 am
2	07.07.2021, 10.30 am
3	15.11.2021, 3.00 pm
4	29.04.2022, 3.00 pm

5.2 Academic Council - Meetings and Members & Co-opted members

URL: <https://mbcet.ac.in/academic-council/>

Dates of Meetings

Academic Council Meetings - Dates with Time	
1	17.02.2021, 10 am
2	25.10.2021, 10 am
3	22.04.2022, 10 am

5.3 Board of Studies - Meetings and Members & Co-opted members

URL: <https://mbcet.ac.in/minutes-of-meeting/>

(i) Department of Civil Engineering

URL: <https://mbcet.ac.in/departments/civil-engineering/bos/>

Dates of Meetings

03.02.2021, 3 pm
24.11.2021, 3 pm

(ii) Department of Computer Science and Engineering

URL: <https://mbcet.ac.in/departments/computer-science-engineering/bos/>

Dates of Meetings

03.02.2021, 4 pm
24.11.2021, 2:30 pm

(iii) Department of Electrical and Electronics Engineering

URL: <https://mbcet.ac.in/departments/electrical-electronics-engineering/bos/>

Dates of Meetings

29.01.2021, 10:30 am

19.11.2021, 10.00 am

(iv) Department of Electronics and Communication Engineering

URL: <https://mbcet.ac.in/departments/electronics-communication-engineering/bos/>

Dates of Meetings

04.02.2021, 3 pm

25.11.2021, 10 am

(v) Department of Mechanical Engineering

URL: <https://mbcet.ac.in/departments/mechanical-engineering/bos/>

Dates of Meetings

29.01.2021, 3 pm

26.11.2021, 3pm

(vi) Department of Science and Humanities

URL: <https://mbcet.ac.in/departments/science-humanities/bos/>

Dates of Meetings

08.02.2021, 2:30 pm

5.4 Finance Committee - Meetings and Members

URL: <https://mbcet.ac.in/finance-committee/>

Dates of Meetings

04.03.2021, 11 am

11.03.2022, 3 pm

5.5 Details of the Meetings of the Other Committees

5.5.1 Internal Quality Assurance Cell

We have imbibed that the exercise of *Quality Assurance* is essential for sustaining institutional excellence. IQAC was first formed in 2015. With an increased focus on quality under autonomy and to meet the statutory requirements of the University and of the UGC under the autonomy regime, College has reconstituted the IQAC in October 2020, in the first meeting of the Governing Body, immediately after becoming autonomous. Academic audit is regularly conducted and the reports are furnished to the University. Annual submission of the Academic Quality Assurance report (AQAR) to the NAAC is also under the purview of the IQAC. During the reporting year also, IQAC has systematically made interventions in the academic and administrative processes to assure the quality. Internal Academic Audit, Internal Administrative Audit. Academic audit as per the University's norms, External Audits (Academic and Administrative audits) by a peer team comprising the leading academicians were conducted during June 2022. Coordinated the AICTE-CII survey and submitted the survey on 5.10.2021. Organized an OBE Workshop jointly with the Teaching Learning Centre (12 and 20 December 2021). Pre qualifier of NBA was submitted during December 2021. SAR was submitted on 22nd Jan 2022. MBCET is ranked as band PROMISING under the category of Colleges/ Institutes (Private/Self-Financed) (Technical) on Dec 31st 2021 based on the details submitted on 24th March 2021. Prepared the Annual Quality Assurance Report 2020-2021 (AQAR) of the HEI based on the quality parameters / assessment criteria developed by NAAC in the prescribed format and was approved by IQAC and submitted on 3rd Feb 2022. Started working on the data towards the preparation of AQAR

2021-2022. Submitted details for The National Institutional Ranking Framework (NIRF) on 8th Feb 2022. The website audit was conducted from 7th to 11th April 2022. Collected the action taken report with identified gaps from all the departments and initiated the preparation of Strategic Plan 2022-2027 during May 2022. Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes for the year 2021-2022 were initiated during May 2022.

Meetings and Members of IQAC

URL: <https://mbcet.ac.in/orders/>

URL: <https://mbcet.ac.in/reports/>

URL: <https://mbcet.ac.in/feedback/>

5.5.2 College Council - Meetings

College Council meets very frequently, even with urgent notice, to consider the matters and take decisions through extensive discussions.

URL: <https://mbcet.ac.in/college-council-2/>

5.5.3 Research Promotion Committee - Meetings and Members

Institute level Research Promotion Committee Constitution (RPC) is chaired by Principal and the constitution is as follows:

1. Principal
2. Vice Principal
3. Dean (Research and Consultancy)
4. Dean (PG Studies and Research)
5. Heads of Departments

Department Research Promotion Committees (DRPC)

1. Head of the Department
2. Assistant HoD
3. Professor in the Department
4. Subject experts from the Department (based on the research agenda of the meeting)

The mandate of the RPCs is to enable research and also to monitor the progress of the research activities.

Dates of Meetings:

14 March 2022, 3pm at Principal's Conference Room

15 May 2021, 3.00 pm - Online through Google meet

07 May 2021, 3.00 pm - Online through Google meet

6. Extension and Outreach activities undertaken

Sl. No.	Department/Unit	Number of Activities
1	CED	4
2	CSE	3
3	EEE	5
4	ECE	4
5	MED	1
6	WSU	2
7	UBA	1
8	NSS	54

Table I Detailed List of Outreach and Social Service Activities during 2021-2022

Name of the Activity	Organising Unit/ Agency/ Collaborating Agency	Name of the Scheme	No; of students participated	No: of teachers	Duration of the activity	Department
Donation of food packets to people in need on special occasions	MBCET Students chapter of ASCE	Social Service	5	0	Diwali, Onam and New Year	CED
Distribution of Sanitisers, Masks, PPEs, gloves etc to a group of Covid relief volunteers from Vellarada Panchayat TVPM	MBCET Students chapter of ASCE	Social Service	10	2	1 day	„
Survey on usage of Face Mask	MBCET Students chapter of ASCE	Social Service	20	2	7 days	„
Visit to Bhalika Bhavan	Thanal -CE	Social Service	13	2	1 day	„
Distributed study materials and smart phones to economically backward students of Neyyatinkara Municipality.	Sparsham – CSE	Social Service	5	5	1 day	CSE
Distributed a smartphone for the children of our housekeeping staff	Sparsham - CSE	Social Service	0	20	1 day	„
Distributed essential items to Sarvodaya Santhibhavan, Vattapara on	Sparsham - CSE	Social Service	20	5	1 day	„
Distributed stationery and other essential commodities required for school to the young students of	IEEE PES and Illumina	Social Service	11	4	2 hrs	EEE

Anandanilayam Children's Home, TVPM						
Provided Mixer grinder, Diapers and basic essentials to 'Care Home' for the old aged who were mentally ill and later abandoned by the family. Also, interaction with inmates	Illumina	Social Service	3	2	2 hrs	„
List of essentials were handed over to the girl inmates of Balika Bhavan, Also interaction with inmates	IEEE PES and Illumina	Social Service	4	4	3 hrs	„
Completed the Electrification work (Wiring and Installation) of a house at Mannamoola during December 2021.	EEE Alumni batch 2012-16 and Illumina	Social Service	3	5	2 weeks	„
Completed the Electrification work (Wiring and Installation) of a house of one of the members of our MBCET family with the support of the Faculty and the Technical staff during June 2021	Illumina	Social Service	2	10	2 weeks	„
Faculty and students of ECE dept. donated 3 wheelchairs to MIND (Mobility in Dystrophy) trust,NGO	Spandanam -ECE	Social Service	2	15	2 hours	ECE

Spandanam team donated lungis and towels to the inmates of Sneha veedu(Care home for mentally disabled) near Nalanchira on 23 December 2021.	Spandanam -ECE	Social Service	2	5	1 hour	„
Distribution of food for the needy patients and their bystanders at Medical College, TVPM on 14th March 2022	Spandanam -ECE	Social Service	0	2	1.5 hours	„
Faculty representatives and student representatives distributed 25 school kits (Bag, instrument box, umbrella) to the children at Pappala Colony near kilimanoor on 21st may 2022	Spandanam - ECE	Social Service	2	4	2 hours	„
Beach Cleaning Drive	ARDRAM	Social Service	35	2	2 hours	MED
Somnium	Women's Studies Unit (WSU) MBCET and UBA	Social Service	8	4	2 hours	WSU
A campaign on Gender Sensitization	WSU, ICC & District Women and Child Development.	Campaign	74	12	1.5 hours	WSU
Distribution of Automatic Hand Sanitizer Dispenser	UBA - MBCET	Social Service	10	4	1 day	UBA
Talk on importance of keeping our seas	NSS MBCET	National Service Scheme	7	2	1 day	NSS

and oceans clean by Sustera foundation						
Interactive session for NSS volunteers. (Resource Person - Mr Ashvin)	NSS MBCET	National Service Scheme	20	2	1 day	
Beach cleanup in collaboration with Sustera foundation	NSS MBCET	National Service Scheme	24	2	1 day	
CLOTH DONATION CAMPAIGN 2.0	NSS MBCET	National Service Scheme	50	2	1 day	
Visit to balikabhavan 2.0	NSS MBCET	National Service Scheme	5	2	1 day	
ANTI NARCOTICS PLEDGE	NSS MBCET	National Service Scheme	50	2	1 day	
STOP THE STIGMA	NSS MBCET	National Service Scheme	50	2	1 day	
AMMUMMA KINNARAM	NSS MBCET	National Service Scheme	50	2	1 day	
NEC Karuthal	NSS MBCET	National Service Scheme	2	2	1 day	
NSS CAPTION CONTEST	NSS MBCET	National Service Scheme	50	2	1 day	
POWER OF PRESERVANCE	NSS MBCET	National Service Scheme	50	2	1 day	
AZZADI	NSS MBCET	National Service Scheme	50	2	1 day	
TROUVAILLE	NSS MBCET	National Service Scheme	50	2	1 day	
SLOGAN WRITING COMPETITION	NSS MBCET	National Service Scheme	50	2	1 day	
DRAWING COMPETITION	NSS MBCET	National Service Scheme	50	2	1 day	
Republic Day celebrations	NSS MBCET	National Service Scheme	3	2	1 day	

MEMEMANIA	NSS MBCET	National Service Scheme	50	2	1 day
SPIN THE LOST TALE	NSS MBCET	National Service Scheme	50	2	1 day
N0 to Dowry	NSS MBCET	National Service Scheme		2	1 day
NSS Camp	NSS MBCET	National Service Scheme	36	4	6 days
Flash Mob	NSS MBCET	National Service Scheme	7	2	1 day
IMPULSE.Talk session by Dhanya Ravi	NSS MBCET	National Service Scheme	50	2	1 day
RD CAMP CULTURALS	NSS MBCET	National Service Scheme	10	2	1 day
RD CAMP VOLUNTEERIN G DAY2	NSS MBCET	National Service Scheme	22	2	1 day
RD CAMP Volunteering DAY 1	NSS MBCET	National Service Scheme	24	2	1 day
RD CAMP Inauguration	NSS MBCET	National Service Scheme	1	2	1 day
Diabetes in Youth	NSS MBCET	National Service Scheme	3	2	1 day
Crowd managing at canteen by NSS VOLUNTEERS	NSS MBCET	National Service Scheme	1	2	1 day
WORLD RIVERS DAY	NSS MBCET	National Service Scheme	3	2	1 day
Visit to Balikabhavan 1.0	NSS MBCET	National Service Scheme	5	2	1 day
CLOTH DONATION	NSS MBCET	National Service Scheme	50	2	1 day
FOOD DONATION ON NSS DAY	NSS MBCET	National Service Scheme	23	2	1 day
VENAM ORIDAM	NSS MBCET	National Service Scheme	29	2	1 day

INTERNATIONAL PEACE DAY	NSS MBCET	National Service Scheme	50	2	1 day
INTERVIEW- PHASE 4	NSS MBCET	National Service Scheme	12	2	1 day
World First Aid Day	NSS MBCET	National Service Scheme	50	2	1 day
WORLD SUICIDE PREVENTION DAY	NSS MBCET	National Service Scheme	50	2	1 day
TALENT DISPLAY - PHASE 1	NSS MBCET	National Service Scheme	9	2	1 day
GLOBAL LITERACY DAY	NSS MBCET	National Service Scheme	4	2	1 day
CASE STUDY- PHASE 2	NSS MBCET	National Service Scheme	4	2	1 day
GROUP DISCUSSION - PHASE 3	NSS MBCET	National Service Scheme	9	2	1 day
TEACHERS DAY	NSS MBCET	National Service Scheme	42	2	1 day
NUTRITION WEEK	NSS MBCET	National Service Scheme	2	2	1 day
NATIONAL ANTHEM SINGING	NSS MBCET	National Service Scheme	43	2	1 day
INDEPENDENC E DAY CELEBRATION S	NSS MBCET	National Service Scheme	11	2	1 day
INDEPENDENC E DAY QUIZ	NSS MBCET	National Service Scheme	11	2	1 day
FIT INDIA MARATHON	NSS MBCET	National Service Scheme	4	2	1 day
Congratulating video to Olympic participants	NSS MBCET	National Service Scheme	50	2	1 day
WORLD DAY FOR INTERNATION AL JUSTICE	NSS MBCET	National Service Scheme	50	2	1 day

World Population Day	NSS MBCET	National Service Scheme	50	2	1 day	
International Yoga Day	NSS MBCET	National Service Scheme	50	2	1 day	
Black fungus its symptoms prevention and what to do next	NSS MBCET	National Service Scheme	50	2	1 day	
Mental Health During Covid Times	NSS MBCET	National Service Scheme	50	2	1 day	
Can Animal Agriculture spark the next pandemic?	NSS MBCET	National Service Scheme	50	2	1 day	
Speak Out	NSS MBCET	National Service Scheme	1	2	1 day	

6.1 Scholarships

Sl. NO.	Name of Scholarships	CED	CSE	ECE	EEE	MED
1	Tuition Fee Waiver Scheme	22	24	22	24	24
2	Management Scholarship	8	7	10	11	4
3	Merit Scholarship	1	43	3	1	-
4	BPL Scholarship	13	13	11	9	15

7. Financial report

The College is solely funded by its own resources on a self-financing mode. The grants from the funding agencies are limited to the funds for the research projects of the students and faculty. The details of the funds received for the project works are tabulated below.

Table J Financial Report for the FY 2021-2022

Item	Unutilized Grant available from Previous year	Resources generated through fees and other sources	Grant received from UGC other funding agencies during the year	Expenditure during the year	Unspent balance	Remarks

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Building	NIL	21,15,00,968.00	NIL	4,86,38,931.00		College has not received any Grant in Aid from UGC
Guest Faculty						
Orientation of Teachers				43,970.00		
Redesigning of courses				63,000.00		
Workshop/Seminars				2,65,280.00		
Others				3,58,39,976.00		
Office/Teaching				11,81,19,271.00		
Laboratory Equipment				37,93,327.00		
Furniture				4,69,630.00		
Library				17,56,594.00		
Meeting etc.				30,000.00		
Total		21,15,00,968.00		20,90,19,979.00		

8. Others

8.1 Campus Placements

(A) For the 2017-2021 B. Tech Batch

In spite of the Pandemic situation 25 companies have made 246 offers through the campus interviews conducted online as well as offline. With more opportunities in the pipeline, it is an encouraging sign. The major recruiters include TCS, Infosys, UST Global, QBurst, Cognizant, QuEST Global and Speridian. Others who have made offers include OSPYN Technologies, Experion Technologies, InApp, H & R Block, Envestnet, PwcAc, VVDN, Sporthood, Capgemini, Tech Mahindra, Wipro, GUIDEHOUSE and Accenture etc. In total 177 students have got placed by the time the final semester has come to a close.

(B) For the 2018-2022 B. Tech Batch

Even though the Pandemic was prevailing, 27 companies have made 414 offers through the Campus interviews conducted online as well as offline. This shows a 159% increase in the placement compared to the previous year (246 numbers). Several students got multiple offers. One student of the CSE Department secured **six placement offers**, which is this season's maximum. A number of students got higher CTC offers than the average pushing them up in the employment value chain. In other branches also, there were cases of multiple offers for a number of students with higher pay offers. With more opportunities in the pipeline, it is an encouraging sign. The major recruiters include TCS, Infosys, UST Global, QBurst, Cognizant, QuEST Global

and Speridian. Others who have made offers include IBM, Microsoft, OSPYN Technologies, Experion Technologies, InApp, H & R BLOCK, Envestnet, Capgemini, Wipro, and Accenture, Byju's, Tata Elxsi, etc. In total 210 students have got placed. More are waiting to get their confirmations.

8.2 Student Internships as a quality assurance measure

Internships for the UG Programmes are integrated in the Curriculum by way of the Activity points. Students will be awarded Activity points when they complete the internships and submit the evidences for the same. Following tabulations show the accomplishments of the graduating batches in terms of their participation in the internship/industrial training during the tenure of study in the College.

Table K (1) Internship attended by 2017-2021 Batch

Sl No.	Department	Total Number of students	Number of students attended	Percentage of students attended
1	CED	118	108	91.52
2	CSE	117	58	49.57
3	ECE	78	77	98.72
4	EEE	74	74	100
5	MED	126	112	89

Table K (2) Internship attended by 2018-2022 Batch

Sl No.	Department	Total Number of students	Number of students attended	Percentage of students attended
1	CED	102	75	73.53
2	CSE	120	116	96.67
3	ECE	85	78	91.76
4	EEE	71	69	97.2
5	MED	110	101	91.82

8.3 Activities under Skill Development and Corporate Relations

In our pursuits to ensure the inculcation of the necessary skills in the students and also to promote the inborn talents of the students for making innovations, the College has redesigned the skill addition portfolio sometime back. This has led to the establishment of the tinkering labs and maker space for the student community under the banner of "Innovation and Entrepreneurship Development Centre (IEDC)" in 2014 with a funding from Kerala Start Up Mission. With the advent of Autonomy, more focus was being given to skill development in a structured manner so that the students would acquire the necessary transferrable skills to become employable when they finish their course of study.

Many activities have been promoted during 2021-2022 also to enable the students to get the hardware and computing related skills. IEDC is facilitating such skilling activities apart from the sessions arranged separately by Departments and the professional bodies. IEDC has conducted 18 activities during 2021-2022 with the focus on "Skill Development" A quick report is given hereunder.

Skill development Programmes:

A) The **Foundational Course in Entrepreneurship** by M/s Wadhvani Foundation. The 75-hour course was held online on Mondays, Wednesdays and Thursdays during April 2021-November 2021 from 5.00 pm to 6.00 pm. 37 students have completed the course and Practice Ventures successfully.

B) Introduction to Python

It was a 5-day Bootcamp covering the basics of Python as well as advanced Data Science Topics like Numpy, Pandas, Matplotlib etc. This Skill Development Program was exclusively for the 2nd years of our College. The classes ended with an assignment that was assigned to each student.

C) **Programming using Arduino** 30-hour course conducted for all departments in online mode. Collaboration discussions with vi. Indo Transworld Chamber of Commerce, Digital Workforce Management System, Sustalife Foundation and Adani Vizhinjam Port were carried out.

8.4 Entrepreneurship Development

Based on the application submitted, KSUM approved the upgradation of IEDC to TBI. Application submitted to DST for iTBI is understood to be “Under Processing”. The College is also having an incubation facility namely “Dr APJ Abdul Kalam Centre for Innovation and Entrepreneurship Development”. The College has been conducting the Hackathons, Bootcamps, Alumni meet, Talks Entrepreneurs, etc. to make the students aware of their capacity as an innovator/entrepreneur.

9 Faculty Training and Development

9.1 Teaching and Learning Centre (TLC)

The Teaching Learning Centre (TLC) has been established by the Management for focusing on the preparation of teachers for delivering the contents effectively and for their continuous professional development. It also set the ecosystem for making the learning more experiential and immersive for the students. Training of the teachers are regularly conducted. The induction of newly appointed teachers, their training, etc. are also pursued by the TLC. New thinking about imbibing the NEP 2020 was also started. Following paragraphs give a gist of the activities during 2021-2022.

(A) NEP 2020 Focus

Seminar on New Challenges and Opportunities for Technical Education in the context of NEP 2020-Importance of Autonomy

National Education Policy 2020 was announced by the Government of India in 2020 to give a new dimension for education with a view to promote indigenous innovations and self-reliance (Atmanirbhar Bharat). The All India Council for Technical Education (AICTE) has instructed all the Higher Technical Education Institutions to ponder over the NEP 2020 and formulate action plans for the implementation of the new policy on education so that the fruits of the new policy would reach the young generation as quickly as possible. NEP 2020 is laying emphasis on quality in education, globalization and autonomy. Higher education, especially Technical education can contribute much to the indigenous innovations in Science and Technology by encouraging Research and Development. This can be given impetus, if industries are linking themselves with the institutions to engage the faculty in the R&D and revising the curriculum to make it relevant and up to date.

Autonomy in academic matters shall be a great opportunity for the institutions to plan and implement the curriculum so that the students can get the benefit of new developments and also can be recognized for their talents. Institutions shall be able to reach out to the Industry and community to transfer the benefits of their Research and Innovations. Industries and R&D organizations can also collaborate with the Autonomous Institutions in a more focused manner to jointly work on the topics of common interest.

NEP 2020 is viewed as a new opportunity for strengthening the academia of our Country. Careful planning will be needed to implement the NEP 2020 for which the Programme of Action have to be formulated by the Institutions.

In these contexts, TLC organized a Seminar on the topic, New Challenges and Opportunities for Technical Education in the context of NEP 2020-Importance of Autonomy on 23rd March 2021. The objectives of the seminar were: (1) to give an overview of the NEP 2020 (2) historical perspectives on national policies on education in India (3) discuss the avenues for quality improvement in higher technical education under NEP 2020 (4) discuss the significance of autonomy in achieving the targets of NEP 2020 in the reasonable timeframe (5) ideation on the formulation of Programme of action for implementing NEP 2020 at MBCET. The follow-up was continued in 2021-2022 while discussing the curriculum revisions.

(B) Microteaching Workshop for newly joined Faculty

TLC in collaboration with the sister concern namely Mar Theophilus Training College ventured to take the newly joined faculty to go through the microteaching sessions. This was facilitated by the Extension and Consultancy Wing of the Training College. TLC has organized a series of sessions under the title “Through the lenses of pedagogical content knowledge and instructor beliefs” on March 22, 2022, and April 12, 2022 using the above linkage.

Subsequently, the evaluation of microteaching of new faculty members was also done as part of the follow up. Subject experts and resource persons shared their valuable insights with the faculty members. Faculty members were advised on the aspects like communication skills, strategies for effective teaching, skill integration, classroom management and collaboration. The matters of technology integration in classroom teaching and use of Educational Media were also assessed during the evaluation of microteaching sessions.

(C) Orientation Programme for new Faculty

TLC has conducted an Orientation programme for the newly joined faculty on December 07, 2021. 33 members of the Faculty from various Departments have attended the session. The faculty members were also briefed about the general rules and regulations of the College.

(D) Interaction with Leading Academicians- Teaching GenZ

TLC has conducted an online Interactive session for the faculty of MBCET on “Teaching GenZ” on 08 October 2021 which enabled a discussion on the challenges in Teaching the new generation. Resource person has shared his views on “how to engage with the current generation students in class”. The talk shed light on the expectations that the students have from the teachers and how the Teachers should orient their Teaching Methodology towards fulfilling those expectations.

(E) Training Programme on Outcome Based Curriculum Design (Virtual mode)

The College IQAC and TLC jointly organized an online training programme for the internal faculty on “Outcome Based Curriculum Design”. Resource person was arranged from outside the College.

Date: 12/11/2021(Friday) and 20/11/2021(Saturday)

Objective: To aid the faculty in Syllabus preparation by addressing the following aspects:

How to prepare the syllabus with the outcomes in mind

- (j) What could be the effective approaches for content delivery so as to achieve the outcomes
- (ii) Moving away from the conventional practices,
- (iii) How the assessments for the courses can be done (including setting up of question papers in a meaningful way (conducting laboratories, evaluating projects, etc.).

(F) New Normal New Life: Let Us Bounce Back

TLC has organized an online Interactive session for the faculty on “New Normal New Life: Let Us Bounce Back” on 13/08/2021. A 3-hour long session was conducted to brainstorm the teachers. It has been highlighted that the Pandemic had caused massive changes to the people’s daily lives, leading to many new ways and means for getting the things done. Participants noted that there was unprecedented shift in the way we live, the way we work, the way we study, the way we socialize and connect. This new normal is impacting each and every one of us in a unique way. It is normal to have feelings such as stress, anxiety, sadness and fear in times like these. The session was concluded by a resolution to accept the new norms of life and utilize suitable means for making the teaching-learning effective.

(G) OBE- An overview

TLC has conducted an in-house session on “OBE- An overview” on 9th November 2021 and also in June 2022.

9.2 Faculty Development Programmes Conducted

2021-2022						
Dept	Odd sem - Name of FDP	No: of Days	Online / Offline	Even Sem - Name of FDP	No: of Days	Online / Offline
CED	KTU sponsored FDP on Recent Trends in Design, Construction and Maintenance of Concrete Pavements	5 days	Online	Recent Advances in Seismic and Wind Load Analysis of Structures	5 days	Online
CSE	NIL			AICTE sponsored FDP - High Performance Computing and Deep Learning for Image and Text Analysis	5 days	online

ECE	STTP on Scientific computing applications	6 days	online	STTP on 5G & IoT and research directions	5 days	online
EEE	AICTE-ISTE sponsored FDP on "AI in Power and Energy Utilities" from 18 January 2022 to 24 January 2022.	6 days	online	ISTE Sponsored One Week Online Faculty Development Programme (FDP) on "Smart Power Grid Technologies - Trends, Opportunities and Challenges" (SPGTOC '21) from 03.05.2021 to 08.05.2021.	6 days	online
MED	NIL			NIL		
S&H	Academic Writing Workshop from 1 Nov 2021 to 6 Nov 2021			NIL		

9.3 Faculty Achievements

Sl No	Department	No: of Achievements in 2021-2022	No of PhDs in 2021-2022	Total No of PhD hands in the Departments
1	CED	11	2	10
2	CSE	6	2	4
3	ECE	10	3	7
4	EEE	6	-	4
5	MED	16	1	8
6	S&H	2	1	6
7	PED	1	2	2
Grand Total				42

10. Students' Professional Development and the Professional Bodies

College is very prompt in making its contributions for instilling proper values and morals in the students. The Cell for Universal Human Values, Cell for Unnat Bharat Abhiyan, ISTE SHE, Women's Studies Unit and so on are actively involved in these matters. Practice of professional ethics is also promoted through various activities of the Department level Associations, the Clubs for the Cocurricular activities, Chapters of the professional bodies, etc. Highlights of the various initiatives taken during the reporting year are given below.

10.1 Elected Student Body at the College Level

The Senate, being the elected Student body, its constitution was preceded by the democratic election process, broadly following the University guidelines and the Lyngdoh Committee Report. The Senate was constituted in January 2022 and the participation of UG and PG students in the Senate was ensured through the representatives. Office bearers have taken oath and assumed their office duly on completion of the election process. Senate oversees the conduct of student activities.

10.2 Professional Activities

In spite of the prevailing pandemic conditions, all the Professional bodies (Local Chapters, Student Branches) were very active throughout the year. Thanks to the online technologies, a number of events were organized by the student branches in the virtual mode. A summary of the number of activities conducted under various banners is given below.

(A) **IEEE SB** and the different IEEE societies PES, EMBS, SPS, CS, RAS and WIE organised a total number of **50** events that includes technical as well as activities of social relevance. The number of activities by the societies and affinity groups are WIE-8; RAS-7; EMBS-4; SP-4; CS-7; PES-8; SIGHT-2; Common-10.

Most of the events were conducted using online platforms and they attracted a large number of participants.

Number of student members-179 Number of Faculty members – 12

(B) The IET MBCET On Campus

The IET MBCET On Campus Chapter has conducted 11 Activities

The Chapter has received Best Faculty Advisor Award and 6 Student Awards for the academic Year 2020-21. These were presented in 2021-2022.

Number of student members-35 Number of Faculty members – 2

(D) The ISTE MBCET Faculty Chapter

The ISTE MBCET Faculty Chapter has organized 139 Activities

Received 3 Awards for ISTE Chapter and 2 Awards for Individuals (Best Faculty and Student).

Number of student members-192 Number of Faculty members – 10

(E) ASME MBCET Chapter

Conducted 2 Activities

Number of student members- Nil Number of Faculty member – 1

(F) ISHRAE MBCET Chapter

Conducted 4 Activities

Number of student members-29 Number of Faculty member – 1

(G) CSI MBCET Chapter

Conducted 16 activities

Number of student members- 203 Number of Faculty member - 1

(H) ASCE – American Society of Civil Engineers MBCET Chapter

Conducted 25 activities

Number of student members- 30 Number of Faculty members – 2

(I) Indian Plumbing Association IPA -Student Chapter

Conducted 2 activities

Number of student members- 34 Number of Faculty member – 1

10.3 Institute Innovation Council (IIC)

IIC MBET has secured 4 Star rating which is the highest rating awarded for all the best performing IICs of India

The activities conducted by the IIC MBCET till June 2021 are listed as follows

IIC calendar Activities –17

MIC driven Activities –6

Self-Driven Activities – 14

Mentor-Mentee Program - IIC MBCET is selected as mentor institute.

IPR Cell was inaugurated on 28th Jan 2022.

Number of student members- 2 Number of Faculty members – 13

10.4 Invited Lectures

Sl. NO.	Department	Number of Lectures
1	CED	9
2	CSE	NIL
3	ECE	10
4	EEE	20
5	MED	9
6	S & H	NIL

11. Campus Community- Activities conducted by MBCET Staff Club

The Staff Club of the College is a common forum for all the employees of the College (Teaching and Nonteaching) for promoting mutual cooperation and a community life. The Executive Committee of the Staff Club for the year 2021-2022 was elected in the General Body meeting held on 4th August 2021. The Office bearers have demonstrated seamless commitment to the conduct of various activities. A summary for the year 2021-2022 is given below.

Activities:

- i. Conducted Onam celebration on 7th September 2021 for all MBCET Staff.
- ii. The Staff club, in association with the Union Bank of India, conducted a session on “Vigilance awareness and anti-corruption initiatives” on 1st November 2021 as a part of the vigilance awareness week (26th October to 1st November 2021). The resource persons from the Bank also delivered a talk on “Cyber security and Credit card transactions” for making the staff aware of the possibilities of frauds.
- iii. The Staff club celebrated Kerala Day and Deepavali on 1st November 2021 and utilized that opportunity for arranging a family meet.
- iv. The Staff club in association with Hindlabs Diagnostic Centre and Specialty Clinic conducted a health check-up on 12th November 2021, for the College staff and their family members as part of the antibiotic awareness week. This was followed by free medical consultation on 16th of November. A total of 80 people participated in the event.
- v. As part of National Pollution Prevention Day on 2nd December 2021, the Staff Club handed over potted indoor plants to all staffrooms in the College to promote the message of healthy and sustainable working environment and carbon neutral conditions.
- vi. The Staff Club and SIP Cell, in association with Anti-Narcotics cell organized an awareness programme for the B-Tech first year Students on 15th December 2021. Session was handled by the, Assistant Excise Commissioner and Vimukthi (De-addiction)

Manager, Thiruvananthapuram.

- vii. MBCET staff club with the support of College Management organized the annual family get-together and Christmas celebrations on 18th December 2021. The function was blessed by the Patron.
- viii. MBCET Staff Club has provided umbrellas at all major locations of the College to help MBCET staff to reach classes or labs on time without bothering about the weather outside.
- ix. The MBCET family united for extending a helping hand to one of the Colleagues, who had met with an accident went on medical leave.
- x. MBCET Staff sports and games of the year 2021-22 were conducted in March-April 2022. Various games including Badminton, Basketball, Table Tennis, Caroms, Chess, Cricket and Football were conducted for the staffs from 16/03/2022 to 06/04/2022. The athletic competitions were held on 07/4/2022(World Health Day) with a variety of sports items and games.
- xi. The Staff Club arranged a doubt clearing session for the staff members with LIC officials regarding the LIC's pension plan on 4th April 2022. Membership forms were also submitted
- xii. MBCET Staff Cricket Team with the support of MBCET Staff club participated in ARCITE inter collegiate staff cricket tournament conducted outside the campus.
- xiii. MBCET staff club organized the annual staff tour to Thekkady and Munnar on 13th and 14th May, 2022.

12. Students' Sports and Games

After a break of two years, since March 2020, the sports and games for students have resumed in the year 2021-2022. Because of the threat of pandemic, it was possible to organize only a handful of events. There was only Selection trials conducted by the University for every game and College has deputed students for participating in the selections. Thereafter, 20 Students from our college represented the University in different games. Out of 20 students, 9 students participated in the All India Inter-University Competitions and 11 Students participated in the South-Zone Inter University Competitions. College could get maximum University participation among all Engineering Colleges in Kerala.

13. International Conference

The College has joined hands with IEEE Kerala Section to host the International Conference on Signal Processing, Informatics, Communication and Energy Systems (SPICES) 2022 in March 2022. More than 100 research papers were presented by the researchers across the world through mainly online mode due to the pandemic. There were tutorial sessions and invited talks delivered by very leading national and international academicians during the three days of the conference. College has received technical support from Bowie State University USA and the graceful sponsorship from CSIR. College Alumni Association also has extended the financial support.

14. Alumni Affairs

The College is maintaining high regards for its alumni. There is a good number of our own

students who are members of our faculty. The Alumni Association has got registered as a charitable Society recently. It is heartening to mention that the former students are spread across the world and they extend excellent support for the welfare and placement of their current juniors. The cultural Festival Crossroads 22 could be rolled out in time because of the timely support of the Alumni Association by way of the sponsorship. Alumni Association has also sponsored the Best Project awards for all the Departments this year also similar to the previous years.

15. Donation of laptops under the Scheme “Bridging the Digital Divide”

APJ Abdul Kalam Technological University has donated ten (10) laptops for giving that to the needy students of the College under the Scheme “Bridging the Digital Divide”. These were distributed to the identified student beneficiaries in the presence of the honourable members of the University’s Syndicate. Along with this, the Alumni Association also has donated one laptop which was also given to one another student.

16. Conclusion

The College has passed through the second year of its journey in the Autonomy regime smoothly. Even though the Covid 19 pandemic has been posing the challenges, the academic Programmes have progressed well. Earnest efforts were made to adhere to the Academic Calendar with a plan that each batch graduate within the duration of their study programme (4 years for B. Tech and 2 years for M. Tech). The accomplishments in terms of the progress and quality have been possible only because of the guidance and support from the stakeholders, Management and the well-wishers, including the Affiliating University and the Government.

We hereby submit the Annual Report for the year 2021-2022 to UGC as part of the compliance to the guidelines. But that also helps us to review our activities and the outcome and also apply the checks and measures for setting the processes right. We are grateful to the UGC for giving us the chance to improve the calibre of our processes and fine tune the academic Programmes.

By signing this document, we certify that the data in this report is accurate to the best of our knowledge and belief.

Signature:

Dr. Abraham T Mathew,

Principal

Dr. Abraham T. Mathew
Principal
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Place: Trivandrum

Date: 22.10.2022

