# **AQAR**

## (Annual Quality Assurance Report)

(2017-2018)

**Submitted to** 

# **NAAC**

**Bangalore** 

by



# Mar Baselios College of Engineering & Technology

Mar Ivanios Vidyanagar, Nalanchira Trivandrum, Kerala

**July 2018** 

#### Annual Quality Assurance Report (AQAR) of the IQAC

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

#### Part - A

# 1. Details of the Institution Mar Baselios College of Engg.& Tech 1.1 Name of the Institution Mar Ivanios Vidyanagar 1.2 Address Line 1 Nalanchira Address Line 2 Thiruvananthapuram City/Town Kerala State 695015 Pin Code mbcet@mbcet.org Institution e-mail address 0471-2545868, 2545866, 2545872 Contact Nos. Dr.T.M.George Name of the Head of the Institution:

Tel. No. with STD Code:

0471-2545869

Mobile:

9447146117

Name of the IQAC Co-ordinator:

Dr.George Zachariah

Mobile:

9446532004

IQAC e-mail address:

igac@mbcet.ac.in

1.3 NAAC Track ID (For ex. MHCOGN 18879)

KLCOGN24346

1.4 NAAC Executive Committee No. & Date:

EC(SC-18)2016/37.1, 5 Nov.2016

(For Example EC/32/A&A/143 dated 3-5-2004. This EC no. is available in the right corner- bottom of your institution's Accreditation Certificate)

1.5 Website address:

www.mbcet.ac.in

Web-link of the AQAR:

http://www.mbcet.ac.in/content/igac

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

#### 1.6 Accreditation Details

Sl. No.	Cycle	Grade CGPA		Year of	Validity
S1. NO.	Cycle	Grade	COFA	Accreditation	Period
1	1 <sup>st</sup> Cycle	A	3.13	2016	5 yrs
2	2 <sup>nd</sup> Cycle	NA	-	-	-
3	3 <sup>rd</sup> Cycle	NA	-	-	-
4	4 <sup>th</sup> Cycle	NA	-	-	-

1.7 Date of Establishment of IQAC:

DD/MM/YYYY

07/04/2015

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

2017-2018

1.9 Details of the previous year's AQAR submitted to NAAC after the latest
Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to
NAAC on 12-10-2011)
i. AQAR29.7.2017
1.10 Institutional Status
University State Central Deemed Private
Affiliated College Yes No
Constituent College Yes No
Autonomous college of UGC Yes No
Regulatory Agency approved Institution Yes   No   No
(eg. AICTE, BCI, MCI, PCI, NCI)
Type of Institution Co-education Men Women
Urban Rural Tribal
Financial Status Grant-in-aid UGC 2(f) UGC 12B
Grant-in-aid + Self Financing Totally Self-financing
1.11 Type of Faculty/Programme
Arts Science Commerce Law PEI (Phys Edn)
TEI (Edu) Engineering Health Science Management
Others (Specify) . Nil

1.12 Name of the Affiliating University (for the Colleges)

Dr.APJ Abdulkalam Technological University,

1.13 Special status conferred by Central/ State	Government-U	GC/CSIR/DST/I	DBT/ICMR etc	
Autonomy by State/Central Govt. / Unive	rsity NA			
University with Potential for Excellence	NA	UGC-CPE	NA	
DST Star Scheme	NA	UGC-CE	NA	
UGC-Special Assistance Programme	NIL	DST-FIST	NIL	
UGC-Innovative PG programmes	NIL	Any other (Sp	pecify) Nil	
UGC-COP Programmes	NIL			
2. IQAC Composition and Activities				
2.1 No. of Teachers	19			
2.2 No. of Administrative/Technical staff	1			
2.3 No. of students	1			
2.4 No. of Management representatives	1			
2.5 No. of Alumni	2			
2. 6 No. of any other stakeholder and	1			
community representatives				
2.7 No. of Employers/ Industrialists	1			
2.8 No. of other External Experts	1			
2.9 Total No. of members	27			
2.10 No. of IQAC meetings held	4			
2.11 No. of meetings with various stakeholders:	No. 9	Faculty 3		
Non-Teaching Staff Students 3	Alumni 2	Others 1		
2.12 Has IQAC received any funding from UGC do	uring the year?	Yes No	✓	
If yes, mention the amount NA				

#### 2.13 Seminars and Conferences (only quality related)

(i) No. of Semin	nars/Conferences/ Wo	orkshops/Symposia	a organized by	the IQAC		
Total Nos.	NIL International	- National	- State	- Ins	titution Level	-
(ii) Themes	NA					

#### 2.14 Significant Activities and contributions made by IQAC

- 1. Prepared and submitted the AQAR for the period 2016-17 on time.
- 2. The Strategic Plan of the College was published as a Quality Enhancement Measure.
- 3. Various activities have been conducted by the Clubs to promote cocurricular and extra- curricular activities.
- 4. Created awareness among students on Environment protection.

  Green Audit was conducted.
- 5. Different add-on courses were conducted such as the Creative and Technical Writing Course, to promote the creativity and professionalism of students.

#### 2.15 Plan of Action by IQAC/Outcome

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

Plan of Action	Achievements
Establish a research centre	The college has been recognised as an approved research centre by the Kerala Technological University
2. Increase association, collaboration and tie-ups with industry and R&D organizations	15 project proposals are ongoing.  MBCET has joined hands with Bennett University as a lead zonal partner to inculcate skills for faculty and students in deep learning, machine learning and artificial intelligence.

	Five faculties from CSE department has been nominated for doing project in these areas.  The Memorandum of Understanding was signed between The Department of Civil engineering, Mar Baselios College of Engineering and Technology, Thiruvananthapuram, Kerala and Builders Association of India, Kerala (Trivandrum) centre, on the 9th of March, 2018.
3. Introduce innovative teaching Learning methodologies - Active and Collaborative Learning(ACL) for selected subjects, Open Online Courses for faculty and students(NPTEL/MOOC)	1)ACL, MOODLE and ICT enabled classes have been introduced, to enhance the quality of Teaching  2) 13 online courses were completed out of which 2 courses were done by students.
4. Remedial classes for Slow-Learners and Content Beyond Syllabus Assignments for Advanced-Learners	ACL, remedial classes, peer group learning and booklets were introduced for Slow Learners whereas Advanced Learners were given Project based learning and content beyond syllabus.
5. A Parents-Industry Databank is to be created and to be shared among the departments to identify the parents who can provide support to students in obtaining internships and industry projects	Prepared database of parents
6. Organising STTPs at the end of each semester, for the benefit of faculty Conduct in-house training for Technical Staff in relevant areas	<ol> <li>5 day STTP on OPTIMISATION         TECHNIQUES for Engineering         Applications.</li> <li>Three day Faculty Development Programme         on "Teaching Learning" organized and         conducted by Teaching learning centre, IIT-         Madras at MBCET from 21/4/2017 to         23/4/2017.</li> <li>Organized FDP in Cyber security RETINAS         18 from 23 to 27 April 2018</li> <li>FDP's i) Product development of an IOT         device ii) FDP on Advances in Pavement</li> </ol>

Technology

- 5) FDP Distance Learning Course through Remote Centre (NMEICT) - ISTE STTP on Electric Power Systems organized by IIT Kharagpur. Training sessions on Ansys, FPGA, PSCAD for Faculty &Tech.Staff
- 6) STTP on Advancements in Power Electronics, Drives for Grid Connected Renewable Energy Systems---Training sessions on Softwares like MATLAB, PSPICE & Familiarization of Equipments& Components for Technical staff.
- 7) 3 day training on Competence Enhancement Training Programme for Technical Staff (ME)
- 8) Workshop on Soft Computing for Biomedical Applications. -- Towards 5G Technologies and Challenges 3/07/2017 to 7/07/ 2017 and 18 Dec '17 to 22 Dec '17
- 9) A 3 day workshop on IoT (Internet of Things) was organized by Department of Civil Engineering, Mar Baselios College of Engineering and Technology in association with APJ Abdul Kalam Technological University on 26th to 28th July, 2017.
- 10) Department of CSE in association with IEDC organized a two day workshop on Artificial Intelligence and Machine Learning on 12 and 13 July 2018.
- 11) Department of CSE in association with IEDC, ACE(Association for Computer Engineers) and NetSec Research Group organized a three-day workshop on "Network and Information Security" from 9<sup>th</sup> to 11<sup>th</sup> July, 2018.

7. Organise International Conferences	3 International Conferences namely Network & Advances in Computational Technologies (NetAct17) Department of CSE, International Conference on Circuits and Systems, (ICCS2017) Department of ECE, International Conference on Infrastructure Development Issues, Innovations and the Way Forward (ICID2018) Department of CE were organized.
8. Research papers based on student projects for inclusion in Department journal	– published 82 research papers.
9. Conduct technical fests, Publish newsletters of department associations and Encourage student participation in professional bodies, cells & club activities	Details of Technical Fests, activities of Clubs and Cells are given below:.  1) UTBHAV, a Techno Cultural Fest was conducted by the department of CE  2) Thanal, a social body under the department of CE distributed food kits to Okhi-Cyclone affected families  Thanal in association with Pallium India on the occasion of world Pallium Day organized cultural Programmes for palliative care patients and distributed kit consisting of food, clothes etc to them  Thanal initiated a housing project from the profit of previous Utbhav  Thanal distributed old and useable clothes to various orphanages  3) HASH'18  The students of Computer Science
	department of MBCET organized it's  Technical Fest 'HASH'18' from 10th to  11th of March, 2018. HASH is an inter-

- collegiate fest which aims to provide a platform for students from various colleges, to showcase their technical and innovative skills.
- Baselian Computing Workshop was conducted on 12th and 13th of October, 2017
- 5) Two activities per-semester for the schools students at Chengalchoola, slum area of the city.Programmes were held on 24<sup>th</sup> February, 2018 and September, 2018.
- 6) Social Extension Programme of Department of Computer Science and Engineering 'SPARSHAM' was conducted on 24<sup>th</sup> February 2018 in college campus. Students organized various recreation activities for a group of 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> standard students from Poonthura.
- 7) As part of Community Extension Programme in association with World Vision a team of faculties and students from the department visited "Poonthura" housing colony, September 2017 and conducted various events to motivate the students.
- 8) World Vision e-outreach Activity-2 Event per semester.Held on 24<sup>th</sup> February 2018 and September, 2018
- Fund raising activity for charity- Hash was held in January 2018
- Hands –on Workshop for school students on topics related to Electricity

- 11) Village Adoption for creating Awareness on Energy Saving, and extend activities to promote Eco-friendly practices in Daily Life.
- 12) Conducted Adharva, the Technical Fest by the association of the department of EC was conducted on 24<sup>th</sup> Feb'18
- 13) Conducted a talk on Cancer awareness 31/01/2018
- 14) Social service activities were conducted twice in a semester by Spandanam, the social service wing of the Department of EC
- 15) Brand-building activities among school students by arranging exhibitions, lab visits, training, talks etc.
- 16) Student Chapter of the American Society of Civil Engineers (ASCE) was approved on October 3<sup>rd</sup>2017.The activities conducted includes the following:
  - Workshop at Laurie Baker Center, Vilapilshala - A two day workshop was organized at Laurie Baker Centre (LBC or Costford Centre), Vilapilshala, Thiruvananthapuram on 10<sup>th</sup> and 11<sup>th</sup> November 2017.
  - The student chapter organized a two-day workshop in association with by Intercad Systems on REVIT ARCHITECTURE. It was held on 13th and 14th of January 2018 at MBCET.
  - Site visit to Greenfield Stadium, Karyavattomwas on 20th January 2018.

	Talk on "Sustainable Development and Alternative Building Techniques" by Mr. V SJayachandran, Chairman, Builders Association of India, Trivandrum Centre was on 14th November 2017.
10. Collection of feedback on curriculum from the students at the end of each semester, Conduct of Exit survey for S8 students, Collection of feedback from faculty regarding curriculum; provide inputs to Curriculum Development Committee once in a year	Feedback is collected in the prescribed format  1) During the Mid-Semesters & End Semester 2) Annually for the teaching staff and technical staff 3) Oral Feedback 4) End Semester Programme Exit Survey.
11. Submission of research project proposals for Internal and External Funding	<ul><li>a) 13 external projects worth Rs.36,35,500 are there of which 2 have already been are already completed.</li><li>b) 17 Internal Projects worth Rs. 14 lakhs</li></ul>
12) Arrange talks to give awareness to students regarding entrepreneurship, facilitate industry relevant training programs at BHub	- The B'Hub which facilitates innovation, knowledge sharing, training and networking promotes entrepreneurship on the campus besides the IEDC.
13) Activities such as pre-placement training, talks on career opportunities, Industry linkages to enhance placement and career prospects	- Training on FUSION 360 software, Personal grooming session and soft skill training was conducted by MalayalaManorama in association with Proctor and Gamble, Edwise orientation talk and Internship fair were provided for students by the Training and Placement cell.
14) More interaction with Alumni and launch of new Alumni Chapter	Regular meetings of alumni and social networking are conducted
	<ol> <li>Finishing schools for Alumni &amp; Final yrs to enhance their practical skills on softwares.</li> <li>Upgrade/Update the Alumni Database regarding their higher studies status/ job profile</li> <li>Prepared a data base of employment details of parents to identify prospective employers from them. Resume of eligible students sent to</li> </ol>

	employers through alumini and referrals.
15) Provide incentives/benefits to faculty for various performances in terms of academic results, industry projects and research outcomes and other notable initiatives.	60% of the college share of the income generated through External Projects is given to the Principal Investigator
16) Addition of modules, such as HR, Library, Hostel etc. in Ecoleaide for automation of above functional units	Performance-based Appraisal System
17) Construction of new approach road as part of campus beautification	Work in progress
18) Increase Infrastructure Facility	Modified the Mary Matha Hostel with a new building (Area: 42000 sq ft.) increasing the intake from 100 to 250.
19) Social Service Activities and best practices at department levels as well as at institute level – charity programs & societal outreach programs, ecofriendly and green initiatives	<ol> <li>Avionics Package Testing Lab (VSSC)-as an application oriented Academic initiative</li> <li>Eco-friendly cement blocks as a sustainable Initiative</li> <li>Build and help Build, Housing project for the homeless</li> <li>Cast iron recycling unit</li> <li>Mar Baselios Youth Excellence Award</li> <li>Green audit was conducted</li> <li>Pollution testing Lab</li> <li>Community Extension Programmes (details given in Criterion 7)</li> <li>Waste water recycled and used for gardening.</li> <li>Water collected through Rainwater Harvesting is purified as Drinking water.</li> </ol>
* Attach the Academic Calendar of the year as .	Annexure. See Annexure No. Part A – 2.15
2.16 Whether the AQAR was placed in statutory body	Yes No
Management / Syndicate	Any other body IQAC & College Council
Provide the details of the action taken	

12

The College Council approved the AQAR submitted by the IQAC on 17 July 18. The same was ratified by the Governing Board for

submission to NAAC

### Part - B Criterion – I Part – B

#### 1. **Curricular Aspects**

#### Details about Academic Programmes 1.1

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD		2 (EC,CE)		
PG	7			2
UG	5(2 batches			16
	each)			
PG Diploma				
Advanced				
Diploma				
Diploma				
Certificate				
Others		1(BTech		
		Honours)		
Total				
Interdisciplinary				
Innovative				

interdiscipiniai y			
Innovative			
· · · · · · · · · · · · · · · · · · ·	 <u> </u>	·	<u> </u>

- 1.2 (i) Flexibility of the Curriculum: Electives
  - (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	12 (5 B.Tech & 7 M.Tech)
Trimester	
Annual	

1.3 Feedback from s (On all aspects)		ceholders <sup>:</sup>	* Al	umni Y	Pa	rents	Y	Employers	Y	Students	Y	]
Mode of feedback	:	Online	Y	Manual	Y	Co-op	erat	ing schools (	for P	EI) Y		

*Please	provide an	analysis of	fthe	feedback in	the Annexure	-see Annexure 1	!.3.1 A-F
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	Whether there is any revision/update of reguaspects.	llation or syllabi, if yes, mention their salient
	NO	
1.5	Any new Department/Centre introduced dur	ing the year. If yes, give details.
	1. MBCET Centre for Research	
	2. <b>B-hub</b>	

#### Criterion - II

#### **Teaching, Learning and Evaluation**

2.1 Total No. of permanent faculty

(\* as on 30 June 2018)

Total	Asst. Professors	Associate Professors	Professors	Others
164	137	7	20	0

2.2 No. of permanent faculty with Ph.D. | 19

19 (\* as on 30 June 2018)

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

Asst. Professors		Associate Professors		Profe	ssors	Other	`S	Total	
R	V	R	V	R	V	R	V	R	V
15	0	0	0	1	0	0	0	16	0

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest Faculty-3 Visiting Faculty-0

Temporary
Faculty-2

(\* as on 30 June 2018)

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	8	12	15
Presented	35	14	1
Resource	2	3	6
Persons			

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

Active and Cooperative Learning was implemented for various

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

136

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

Open Book Exams, Online Tests and assignments

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

0	0	0

2.10 Average percentage of attendance of students:

nts: 90

2.11 Course/Programme wise distribution of pass percentage :

Title of the	Total no.		Ι	Division		
Programme	appeared	Distinction %	Ι %	II %	III %	Pass %
B.Tech ECE	117	6.8	57.2	3.41	-	67.5
B.Tech EEE	51	23.53	47.06	0	0	70.59
B.Tech CE	116	15.52	57.78	2.59		75.86
B.Tech ME	124	13	48	-	-	62
B.Tech CS	105	5.71	42.85	0.95	-	49.5
M.TechTelecomm						
unication	9					88.8
Engineering						
M.Tech						
Signal Processing	4					50
M Tech	8					87.5
Power Control &						
Drives						
M Tech	15					86.67
Control System						
M Tech	18					100
Structural						
Engineering						
M Tech	6					100
Computer Science						
& Engineering						
M Tech in	6					50
Machine Design						

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

All the courses in the Department are grouped into eight modules and the Module Coordinator monitors the activities in each module. The Module Coordinator gives a report to the IQAC Members regarding the scrutiny of the Lecture Notes, Question Papers, Answer Sheet Valuation etc. The IQAC members randomly check the course files of the courses under various modules.

#### 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	16
UGC – Faculty Improvement Programme	22
HRD programmes	8
Orientation programmes	0
Faculty exchange programme	0
Staff training conducted by the university	18
Staff training conducted by other institutions	26
Summer / Winter schools, Workshops, etc.	11
Others	12

#### 2.14 Details of Administrative and Technical staff( \* as on 30 June 2018)

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	25	0	0	1
Technical Staff	64	0	5	0

#### Criterion - III

#### 3. Research, Consultancy and Extension

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

- The College has been approved as Research Centre under Kerala Technological University and 4 candidates in Civil Engineering and Electronics & Communication Engineering have registered for PhD
- In-order to support The Faculty Members pursuing Ph.D., work load reduction for a Faculty Member at the Department level is allowed.
- Faculty members who avail themselves of leave for research work leading to Ph.D will be given a chance to work as adjunct faculty members consider ring the requirements and convenience all the departments. projects which will be supported by internal seed money.
- Faculty members are encouraged to take up external Funded Projects.
- In addition to this they are encouraged to propose projects which will be supported by internal seed money.

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	4	-	2
Outlay in Rs. Lakhs	3.44	31.75	-	10

#### 3.3 Details regarding **minor** projects

	Completed	Ongoing	Sanctioned	Submitted
Number	7	12	1	-
Outlay in Rs. Lakhs	3.36	6.3	0.5	-

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	40	1	-
Non-Peer Review Journals	-	1	-
e-Journals	8	-	-
Conference proceedings	33	9	-

3.5 Detai	Is on In	npact fac	tor of pul	blications:
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Range	-	Average	-	h-index	-	Nos. in SCOPUS	-
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# 3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (LAKHS)	Received
	3	SERB, DST	27.9	13.56
Major Projects	1	KSCSTE	4	-
	2	ISRO	24.4	18
	1	KSCSTE	3.44	3.44
	2	CeDS	0.35	-
	2	CeDS	0.3	-
	2	CeDS	0.25	-
Minor Projects	2	CeDS	0.15	-
	1	CEDS	0.5	-
	1	CEDS	0.53	0.53
	1	CEDS	0.3	0.3
	1	CeDs	0.4	0.4
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
	20/12/16 – till date	MBCET	0.8	0.33
	01/12/17 – till date	MBCET	0.5	-
	01/12/17 – till date	MBCET	1	-
Projects sponsored by the University/ College	01/12/17 – till date	MBCET	1	-
	2	MBCET	0.95	-
Conege	1	MBCET	1.28	-
	1	MBCET	0.5	-
	1	MBCET	0.25	-
	1	MBCET	0.6	-

	1	MBCET	0.5	-
	1	KTU-CERD	1.35	1.35
	1	MBCET	0.1	-
	1	MBCET	0.9	-
	1	MBCET	0.55	-
	3	CERD(KTU)	2	2
Students research projects (other than compulsory by the University)	-	-	-	-
Any other(Specify)	-	-	-	-
Total	-	-	46.9	26.35

3.7 No. of books published i) With ISBN No. 1 Chapters ii) Without ISBN No. Nil	in Edited Books 2				
3.8 No. of University Departments receiving funds from					
UGC-SAP . CAS . DS DPE . DBT Scheme/funds	ST-FIST				
3.9 For colleges Autonomy . CPE . INSPIRE . CE . A	DBT Star Scheme				
3.10 Revenue generated through consultancy  1.15 lakhs  3.11 No. of conferences organized by the Institution					

Level	International	National	State	University	College
Number	3	1	-	-	-
Sponsoring	IEEE India				
agencies	Council, IEEE	KSCSTE,			

	NBHM		
Systems society India chapter	7		
India chapter			
KSCSTE,			
ISRO,			
QBURST,KIIFI	В		

3.12 No. of faculty served as experts, chairpersons or resource persons	14	

3.13 No. of collaborations

International

National

- | /

Any other | -

3.14 No. of linkages created during this year

5

3.15 Total budget for research for current year in lakhs:

From funding agency 41.5

41.57 lakhs

From Management of University/College

17.95 lakhs

Total

59.52 lakhs

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	0
Inational	Granted	0
International	Applied	0
International	Granted	0
Commonaialiand	Applied	0
Commercialised	Granted	0

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year

Ī	Total	International	National	State	University	Dist	College
	8		4	3	-	-	1

Nirmal MS, Best paper Award, Institution of Engineers

Dr.K Muraleedharan Nair, Best researcher Award,

Dr.K. Muraleedharan Nair, Best Researcher Award, MBCET

Dr.Jayasree Best Teachers Award.

Nidhi MB, Jury Member for ISTE National Award,

3.18 No. of faculty from the Institution who are Ph. D. Guides

4

and students registered under them

4

3.19 No. of Ph.D. awarded by faculty from the	e Institution 6
3.20 No. of Research scholars receiving the F	Sellowships (Newly enrolled + existing ones)
JRF 1 SR -	Project Fellows - Any other -
3.21 No. of students Participated in NSS ever	nts:
	University level - State level 2
	National level _ International level _
3.22 No. of students participated in NCC eve	ents:
1	University level - State level -
Ŋ	National level _ International level _
3.23 No. of Awards won in NSS: Nil	
1	University level 0 State level 0
I	National level 0 International level 0
3.24 No. of Awards won in NCC: Nil	
1	University level _ State level _
]	National level International level
3.25 No. of Extension activities organized	
1	University forum - College forum 1
	NCC - NSS 20 Any other 3
3.26 Major Activities during the year in the space Social Responsibility	phere of extension activities and Institutional

#### **Community Extension Programme**

- Visit by Faculty & Students backward areas of the city in association with World Vision a) Chenkal Choola b) Bund Colony c) Poonthura Coastal area
- 2. CPU Assembly & Augmented Reality-Workshop for school students from backward areas of the city. 40 students belonging to the Fishermen's family of Poonthura, a coastal area, attended the Programme.
- 3. Gave Financial assistance of Rs 20000/- to the needy people identified by Pallium India.
- 4. Food kits were distributed to 40 families in the Okhi Cyclone affected area.
- 5. Provided one-day meal for the inmates of Kerala State Council for Child Welfare.
- 6. NSS Activities constructed a house for an economically backward person. (expenses:Rs 5.4 lakhs)

#### Criterion - IV

#### 4 Infrastructure and Learning Resources

#### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly	Source of	Total
		created	Fund	
Campus area	10.07Acres	Nil	Fees	10.07Acres
Class rooms	60	Nil	Fees	60
Drawing Halls	4	Nil	Fees	4
Laboratories	40	1	Fees	41
Seminar Halls	7	Nil	Fees	7
No. of important equipments		24		24
purchased (≥ 1-0 lakh) during				
the current year.				
Value of the equipment		32,97,181	Fees and	32,97,181
purchased during the year (Rs. in			ISRO	
Lakhs)			Fund	
Others		14,60,299		14,60,299

#### 4.2 Computerization of administration and library

- The Library is fully computerized and functions through automated ERP library software.
- The Library has computer networking facility and high speed internet leased line of 60 Mbps Bandwidth connectivity is available. Wi -Fi facility is also available at the library premises.
- The activities of the Library such as accessioning of books, cataloguing, classification and issue/return/renewal are automated using Ecoleoide ERP and KOHA ILMS
- Books are barcoded and book database is maintained in the server. OPAC facility is provided in the Library.
- Digital Library / Institutional Digital Repository using OSS software DSpace.

## 4.3 Library services:

	Existing		Newly added		Total		
	No.	Value	No.	Value	No.	Value	
Text Books	1500	950000	1200	380000	2700	1330000	
Reference Books	50	300000	20	20000	70	50000	
e-Books	-	-	-	-	-	-	
Journals	96	223609	Renewe	220432	96	444041	
			d				
e-Journals	344	1024506	344	1195422	Renewed	2219928	
Digital Database	344	1024506	344	1195422	Renewed	2219928	
CD & Video	20	comple	15	comple	35	complem	
		mentary		mentary		entary	
Others (specify)							

## 4.4 Technology up gradation (overall)

	Total	Computer	Internet	Browsing	Computer	Office	Depart-	Others
	Computers	Labs		Centres	Centres		ments	
Existing	650	432	50	13	68	22	112	3
			Mbps					
Added	38	X	10	X	X	2	33	3
			Mbps					
Total	688	432	60	13	68	24	145	6
			Mbps					

- 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)
  - Campus has an internet Leased Line of 60 Mbps Bandwidth ,1:1 uncompressed on optical fibre
  - Separate accounts are given to all the faculty members to save their data and they can use internet and intranet any time free of cost.
  - All the staff rooms are equipped with network connected PCs and printers
  - Entire campus is Wi-Fi enabled and all computer labs have Internet access.
  - The Wi-Fi facility is available in the college hostels also.
  - The central computing facility is available in the campus.

#### **Training to Students**

- IBS Software and Mar Baselios College of Engineering and Technology (MBCET) in partnership with IATA team up for the IBS Travel Hackathon 2018 Student Edition – the exclusive qualifier event for student teams from India to IATA NDC Hackathon in Kochi.
- The Department of Computer Science & Engineering organized a two day workshop, 'Baselian Computing Workshop' (BCW 2017) on 12th and 13th of October, 2017.
   BCW 2017 was an intensive two-day workshop for 50 intellectually curious and motivated high-school students, from different Government Schools in and around Trivandrum city.
- A one-day workshop on "R Programming and Philosophy of FOSS" was organized as part of FOSS CLUB on November 2017.
- A one day workshop on Latex was conducted for final year B.Tech and M.Tech students on February 2018.
- An awareness talk by Mr.Lijoy Varghese was organized for the first year students on August 18, 2017.
- The student branch of CSI conducted the following events in the month of November 2017.

- Code IT (Coding Competition)
   Game of Codes (Inter College Coding Competition)
   CODE-BOUT
- ISTE MBCET Chapter in association with Dept. of CSE and IEDC cell organized a 2 day workshop on "Raspberry-Pi" on 3rd and 4th Feb 2018.
- ISTE MBCET Chapter of Mar Baselios College of Engg. & Tech. conducted a 2 day workshop on "3D game design" in association with Robokart on 4th and 5th Nov 2017.
- As part of HASH, for the first time a 22-hour #Hackathon was conducted by the college in association with Curvelogics at B'Hub.The theme of Hackathon for this year was "Healthcare and Social Welfare".
- As part of Hash 2018, department of CSE organized a two day workshop on "Unity Game Development" on 10 and 11 March 2018.
- Department of CSE organized a two day workshop on "Robokart IoT Home automation" on 10 and 11 March 2018.
- Department of CSE organized a one day workshop on "GDG-WebApp using Firebase" on 10 March 2018.
- Department of CSE organized an invited talk on "Internet Security" on 10 March 2018.
- Department of CSE organized an invited talk on "Are We Living in a Computer Simulation" on 11 March 2018.
- Department of CSE as part of HASH organized a 'Stories Worth Sharing' session which is a Pan India initiative spread across various cities over India.
- A Project Exhibition was organized by the department of CSE in association with ISTE on July 22, 17 as part of the international conference on Networks & Advances in Computational Technologies NetACT17.
- Department of CS organized Talk on the topic "Technology in Digital Marketing"
- Department of CS organized a workshop on "AI and Deep Learning" in association with IEEE Computer Society student chapter, MBCET on Feb. 3rd and 4th 2018.
- Department of CS organized "Android App Development" workshop in association with IEEE Computer Society student chapter, MBCET on NOVEMBER 4TH 2017.

- A Poster Presentation was organized by the department of CSE in association with IEEE Computer Society on July 22, 17 as part of the international conference on Networks & Advances in Computational Technologies NetACT17.
- A Career guidance talk on "What After B.Tech", sponsored by the ACM (Association for Computing Machinery) Student Chapter, MBCET, for all the S6 and S4 B.Tech students of CSE Department on Feb 21, 2018.
- The Department of CSE is conducting various Value Added Courses in order to equip the students themselves to enhance their curriculum during January to April, 2018.
- HASH 2018, the technical fest was conducted by the department of CS on March 10<sup>th</sup> and 11<sup>th</sup> of 2018
- The EEE Department organized an invited talk on "DC DC Converter Applications in Satellite and Launch Vehicles" by Mr. Manoj R, Scientist E, ISRO on March 30th 2017.
  - Few faculty members, all PG students (Power Control and Drives) and S6, EE students who have chosen SMPC as elective attended the session.
- As a part of Academic lecture series an invited talk on "Line Following Robot Design" by Dr. Jisha V R, Asst. Professor, CET, was held on 24th April 2017.
- Students of S7, EE completed their 4 days Industrial training at Sabarigiri Power House, Moozhiyar, Lower Periyar Power House, Kakkayam Power House, 110kV Substation Parutipara, 220kV Substation Pothencode and 110kV Substation Thirumala from 8th – 19th May 2017.
- Students of S7EE, S3EE1 and S3EE2 attended E-Yantra Workshop held at MBCET from 17th to 21st July 2017. They had an introduction and project session with Fire bird 5, Raspberry Pi, Aurdino and Serial Interfacing.
- Two students of S7, EE completed their training at NIISH from 3rd to 15th July 2017.
- All the students of S3, EE1 completed their internship at many places of KSEB Electrical section office during June – July 2017.
- All the students of S3, EE2 completed their internship at KSEB Electrical section office, Keltron and Bhub during June July 2017.
- Students of S3EE and S5EE completed a two-day project based training programme on RC Aircraft Design conducted by Skyfilabs at MBCET on 19th March 2017.

- Students of S4,EE were selected for doing internship with IoT team at EY, Trivandrum.
- Students of S4EE1 and S4EE2 attended Workshop on sixth sense Robotics at IIT Madras on 10th January 2018.
- Students of S4EE1 and S4EE2 participated in Drone Workshop held at IIT Madras on 6th January 2018.
- Students of S4EE1 participated in "Aero Modelling & hovercraft competition" at IIT
   Madras on 5th 7th January 2018.
- Students of S8,EE attended a two day workshop on "Introduction to Field Practices in EEE(An Employability Enhancement Program)" at MBCET on 23rd and 24th February 2018 by SEEM-MBCET Chapter.
- Several value added courses on RC Aircraft workshop, 'IOT and Xcelerator Platform,
  Drone Workshop, Introduction to Field Practices in EEE (An Employability
  Enhancement Program) etc have been conducted in the college.
- The ASME student chapter under the Department of Mechanical Engineering of Mar Baselios college of Engineering and Technology, in association with the FMAE, is giving the students all over the country, an opportunity to truly stand out from the others.
- Fourth Ambit in association with AICTE organized an Internship Fair for the students of S6 Mechanical
- SCOREQC Training and services, Trivandrum conducted a Test for students of S 8
   B.Tech Mechanical for a course on Oil and Gas Technology.
- Training on FUSION 360 software was given to S7 ME students in August 2017.
- Personal grooming session and soft skill training was conducted by Malayalam Manorama in association with Proctor and Gamble for S6 ME students in January 2018.
- Talk on Quality assurance and control for students in various fields such as HVAC,
   NDT for S8 students.
- An orientation talk was conducted for the fourth year students in June 2017 to motivate the students for their higher studies in foreign university

- A two day workshop was organized by ASCE student chapter at Laurie Baker Centre (LBC or Costford Centre), Vilapilshala, Thiruvananthapuram on 10<sup>th</sup> and 11<sup>th</sup> November 2017. Faculty from LBC gave lectures on the philosophy of Cost Effective Construction by Padmashri Laurie Baker. Hands-on training and demonstration of cost effective construction methods such as mud and bamboo construction, filler slab construction etc. gave students a great experience.
- The student chapter organized a two-day workshop in association with by Intercad Systems on REVIT ARCHITECTURE. It was held on 13th and 14th of January 2018 at MBCET.
- Site visit to Greenfield Stadium, Karyavattomwas on 20th January 2018. Mr
  Muthanna K M, Vice President detailed the students about every aspect of the stadium
  such as design, safety etc and guided them through all the features. It was a rich
  experience and imbued everyone with exceptional practical knowledge.

#### **Training to Faculty Members**

- Department of CSE in association with IEDC organized a two day workshop on Artificial Intelligence and Machine Learning on 12 and 13 July 2018.
- Department of CSE in association with IEDC, ACE(Association for Computer Engineers) and NetSec Research Group organized a three-day workshop on "Network and Information Security" from 9<sup>th</sup> to 11<sup>th</sup> July, 2018.
- Network Research group of Department of Computer Science & Engineering, Mar Baselios College of Engineering & Technology, organized a five days Faculty Development Programme on "Recent & Emerging Technologies in Network & Security" from April 23rd to April 27th, 2018.
- Department of Computer Science and Engineering, Mar Baselios College of Engineering and Technology, Trivandrum organized an IEEE International Conference on Networks & Advances in Computational Technologies (NetACT17), during July 20-22, 2017, in association with Computer Society of India Trivandrum Chapter, IEEE Kerala Section, Bowie State University, USA, Gannon University, USA and Malardalen University, Sweden.

- Three day FDP on "The Product Development of an IoT Device" was organized by Department of Civil Engineering, Mar Baselios College of Engineering and Technology in association with APJ Abdul Kalam Technological University on 26th to 28th July, 2017.
- An Invited talk on "Latest Computer Technologies" by Ms.Priyabrata, Senior Software Engineer, TCS was organized by Department of CSE on August 17, 2017.
- An Invited talk on "Career Opportunities" by Mr.Balachandra was organized by Department of CSE on August 16, 2017.
- An expert lecture on "Seasonality Detection" by Prof. Darsana Josyula, Bowie State University, USA was organized by Department of CSE on July 22, 2017.
- Invited talks by Prof.(Dr) Sasikumar Punnekkat (Malardalen University), Prof.
   Jeganathan L(VIT) and Dr. John Jose (IIT Guwahati) were organized by Department of CSE on July 20 and July 21, 2017.
- Workshop (FDP) on Towards 5G Technologies and Challenges by the department of Electronics and Communications was conducted during 18th December to 22nd December 2017
- Workshop on Soft computing for Bio medical Applications in association with KSCSTE was organised by the department of ECE during July 2017.
- Faculties of MBCET, EEE Dept. attended an FDP on "Teaching and Learning" conducted by IIT Madras from 21<sup>st</sup> to 23<sup>rd</sup> April 2017.
- Faculty of MBCET, EEE Dept. attended "One Week ISTE STTP for Coordinators on Electric Power System" at IIT Kharagpur from May 1<sup>st</sup> -5<sup>th</sup>, 2017.
- Faculty of MBCET, EEE Dept. attended a one day FDP on "Funding Your Research:
   How to apply for and get International Research Grants" organized by Dept. of
   Mechanical Engineering, Trinity College of Engineering, in association with Indian
   Society for Technical Education (ISTE) held at Trinity College of Engineering on 13<sup>th</sup>
   June 2017.
- Faculties of MBCET, EEE Dept. attended a Short Term Training Programme on "Advancements in Power Electronics and Drives for Grid Connected Renewable Energy Systems-APGRES'17" was organized by the Department of Electrical &

- Electronics Engineering, Mar Baselios College of Engineering & Technology from 19<sup>th</sup> to 23<sup>rd</sup> June 2017.
- Faculties of MBCET, EEE Dept. attended a Faculty Development Programme on "Introduction to Embedded Systems' and hands on training on 'Keil & Arduino IDE' from 3<sup>rd</sup> to 7<sup>th</sup> July 2017 conducted by Dept of EEE, Marian Engineering College.
- Faculties of MBCET, EEE Dept. attended a STTP on "Robotics and Automation", organised by CET Centre for Interdisciplinary Research, College of Engineering Trivandrum and sponsored by Directorate of Technical Education, Government of Kerala, from 3<sup>rd</sup> to 7<sup>th</sup> July 2017.
- Faculty of MBCET, EEE Dept. attended a workshop on "Soft Computing for Biomedical Applications" jointly organised by KSCSTE and the Department of Electronics & Comm unication Engineering, MBCET from 3<sup>rd</sup>to 7<sup>th</sup> July 2017.
- Faculties of MBCET, EEE Dept. attended a two-Week ISTE STTP on "Electric Power System" 10<sup>th</sup> July to 15<sup>th</sup> July 2017, at MBCET, organized by Indian Institute of Technology (IIT), Kharagpur.
- Faculties of MBCET, EEE attended a 5 day Short Term Training Programme on "Modern Power Systems" at College of Engineering, Trivandrum from 24<sup>th</sup> July to 28<sup>th</sup> July 2017.
- Faculties of MBCET, EEE Dept attended a FDP on "Product Development of an IoT Device" organized by Dept. of Civil Engineering at MBCET, from 26th to 28th July 2017.
- Faculties of MBCET, EEE Dept attended a Workshop on "Kerala State Energy Conservation Award Scheme-Sensitisation Camp and Best Practices Case Sharing" at Energy Management Centre, Trivandrum on 29<sup>th</sup> July 2017.
- Faculties of MBCET, EEE Dept attended a National Conference on Mathematical Methods for Engineering Applications (NACMMEA -17) organized by the Department of Science and Humanities with the academic assistance of Kerala Mathematical Association and Co-Sponsored by SERB, NBHM and KCSTE at MBCET, from 27-29<sup>th</sup> July, 2017.
- Faculty of MBCET, EEE Dept. completed NPTEL 8 week course on "Introduction to Airplane Performance" with elite certification from January to March 2017.

- Faculties of MBCET, EEE Dept. completed online course of 6 week duration from 2<sup>nd</sup> May to 12<sup>th</sup> June 2017 on "Making Powerful Multimedia Presentations" conducted by the University of Kerala.
- Faculty of MBCET, EEE Dept. attended TEDx Vazhuthacaud, State Standard Event held on 26<sup>th</sup> August 2017.
- Faculties of MBCET, EEE Dept. attended the Faculty Development Programme on "Design and Engineering" organized by the Department of Mechanical Engineering, College of Engineering, Trivandrum from 18<sup>th</sup> to 22<sup>nd</sup> December 2017.
- Faculty of MBCET, EEE Dept. completed NPTEL online course on "Introduction to internet of things" with elite certification conducted by IIT Kharagpur from July to October 2017.
- Faculty of MBCET, EEE Dept. successfully completed NPTEL 8 week online course on "Basic Electrical Circuits" conducted by IIT Madras from July to October 2017.
- Faculty of MBCET, CE Dept. completed NPTEL online course on "Engineering Mechanics" conducted by IIT Madras.
- Faculties of MBCET, EEE Dept. attended the KTU sponsored Faculty Development Programme on the topic "Internet of Things in Smart Grid" from 11<sup>th</sup> to 13<sup>th</sup> January 2018.
- Members of both teaching and technical staff of MBCET, EEE Dept. attended a two day workshop on "Introduction to Field Practices in EEE (An Employability Enhancement Program)" at MBCET on 23<sup>rd</sup> and 24<sup>th</sup> February 2018 by SEEM-MBCET Chapter.
- ISTE sponsored STTP on OPTIMISATION was organised by Mechanical Engineering Department of MBCET, during 17-21 July 2017.
- Department of Civil Engineering organized a Faculty Development Programme on Product Development of an loT Device; during 26th to 29th of July 2017.
- A National Conference on Mathematical methods for Engineering Applications (NACMMEA- 17) was organized by the Department of Science and Humanities with the academic assistance of KMA and co-sponsored by DST,DAE and KSCSTE during 27-29 th July 2017 for the young researchers and faculty members of various denominations. The eminent personalities from the Premier Institutions like IIT Madras, IISc Bangalore etc were the resource persons.

- Training to Technical Staff
- The department of ME had organized a training program called 'Competence Enhancement Training for technical staff' during 12-14 June 2017
- The department of ECE in association with IEDC MBCETconducted a workshop on Introduction to Arduino Progaramming for the technical staffs during June 6 - 8, 2017
- Faculty members of CE department attended a FDP on 'Design of Steel and Timber Structures' organised by Department of Civil Engineering, Marian Engineering College, 25-29 June 2018.
- Faculty members of CE department attended a FDP on 'Design of Glass Structures' organised by College of Architecture Trivandrum, 21-23 May 2018.
- Faculty members of CE department attended a three day STTP on 'Modelling Transport in Smart City Context' at Transportation Engineering Research Centre, College of Engineering, Trivandrum on 14-16 March 2018.
- Faculty members of CE department attended a STTP on 'Dynamic Analysis of Structures Using ETABS' organised by organised by Department of Civil Engineering, Rajagiri School of Engineering and Technology, 6-10 January 2018.
- Faculty members of CE department participated 5 day FDP on "Design of Reinforced Concrete Structures" organized by the department of civil engineering, Marian college of Engineering and Technology, from 18-22 December 2017.
- Faculty members of CE department attended a one day FDP on Geomatics at Marian college of Engineering, Trivandrum on 5th July, 2017.
- Faculty members of CE department participated 5 day FDP on "Analysis of intermediate structures" organized by the department of civil engineering, Marian college of Engineering and Technology, from 3rd to 7th July, 2017.
- Faculty members of CE department attended Short term programme on "Optimization techniques for Engineering applications" at MBCET on 17th to 21st July 2017.
- Faculty members of CE department attended a one day FDP on Geomatics at St. Thomas College of Engineering from 22nd to 24th July 2017.
- Faculty members of CE department attended Short term programme on "Sustainable Engineering the road ahead" at College of Engineering, Trivandrum on 10th to 15th July 2017.

- Faculty members of CE department attended Short term programme on "Research methods and Mathematical approach for Engineering Research" at Mohandas College of Engineering and Technology, Trivandrum on 3rd to 7th July 2017.
- Faculty members of CE department attended Faculty Development Programme organized for Mar Baselios College, Trivandrum, Kerala by TLC, IIT Madras on 21-23 April 2017 at MBCET.

4.6 Amount spent on maintenance in lakhs:

i) ICT 8.75 Lakhs

ii) Campus Infrastructure and facilities | 82.29 Lakhs

iii) Equipments

iv) Others 4.09 Lakhs

Total: 97.1 Lakhs

## **CRITERION V**

## STUDENT SUPPORT AND PROGRESSION

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

The IQAC through the Heads of various Departments, Staff Advisors, Physical Education department and the Faculty Members implements various programmes for creating awareness among students about the support services. Various Student Support Programmes are announced through the website, handbook, notices, display boards, email, group messages etc, besides the announcement in class rooms.

- Actively maintained 11 Student Clubs.
- Add on Courses.
- Free Food, Accommodation and Fee waiver for students talented in Arts and Sports.
- proficiency, merit and scholarships (Academic 90, Sports 59, Arts 19) including Baselian Kayika Pratibha, Baselian Kala Pratibha, Baselian Award for best out-going student, and Youth Excellence Award with One Lakh Prize money.
- Staff Advisory system for monitoring student progress.
- Scrutiny of question paper: To enhance the quality.
- Course file verification: To ensure that portions are completed as per syllabus.
- Content Beyond Syllabus: To give additional information about each subject.
- Blooms Taxonomy Level: Ensure that Series Examination questions are up to the blooms taxonomy Level.
- Lecture Plan: To plan the lectures in advance to ensure that the syllabus should be completed.
- Course Outcomes: To ensure that the questions are mapped to the correct course outcomes.
- Use of ICT for better Parent-Teacher-Student interaction and communication.
- Students are motivated to do projects.
- Functioning of IEDC is strengthened to promote students' Innovation, Entrepreneurship and Startups.

The following workshops/Training/Talks were conducted by the IEDC

Sl.No.	EVENT	Resource Person	DATE
1	THINK 10X (For all Students)	Mr. Gokul Alex, Senior Manager, Business Innovation at UST Global, Thiruvananthapuram	24 FEB 2018
2	ROBOTICS MAKER WORKSHOP (For all students)		19 – 23 FEB 2018
3	WOMEN IN ENTREPRENEURSHIP	Mrs Rina Vivekanandan, Sr Vice President of ECESIS Care	3 FEB 2018
4	RELEVANT 2018 (For all students)	Prof. Sarju Kottapuram from St. Joseph's College of Engineering and Technology & Prof. Aneesh Surendran from SNIT, Adoor	13 -14 JAN 2018
5	INTRODUCTION TO ROBOTICS (for S2 ME & S2 CS)		13 -14 JAN 2018
6	INTRODUCTION TO ROBOTICS (for S1 EEE)		07 -08 OCT 2017
7	DEVELOPER'S WEEK	Organized by Mar Baselios College of Engineering & Technology, Thiruvananthapuram and Bloombloom Dreambiz Pvt Ltd.	23 -24 SEPT 2017
8	INTRODUCTION TO ROBOTICS (for S1 ECE)		23 -24 SEPT 2017
9	INCEPTRA(For all students)	Catalyst, IEDC MBCET along with Kerala Startup Mission	21 SEPT 2017
10	PRODUCT DESIGN AND DEVELOPMENT (For all students)	Mr.Anil Kumar B S and Mr.Ani Sam Varghese.	12,13 & 19,20 AUG 2017

11	OUTOFSYLLABUS (For all students)	Mr. Rohit Radhakrishnan, Co-Founder and Chief Operating Officer, Open fuel.	9 AUG 2017
12	e-YANTRA SUMMER COURSE (For all students)		17 -28 JULY 2017
13	GREENROOM: STARTUP- SME CONCLAVE	GREENROOM- Kerala's biggest STARTUP SME Conclave, was held at Girideepam Convention Centre, Mar Ivanios Vidya Nagar	2 JULY 2017

## 5.2 Efforts made by the institution for tracking the progression

Tracking the progression is done using feedback from the following stakeholders:

- Students
- Teachers
- Parents
- Alumni
- Employers

## 5.3 (a) Total number of students

- UG 2197
- PG 110
- Ph.D nil
- Others nil
- (b) Number of students outside the state nil
- (c) Number of international students Nil
- Men \*Number 1370 \*percentage 59.38
- Women \* Number 937 \*percentage 40.62

## B.tech and M.tech admission

		Last year (2016-17)							Th	is year	(2017-18)	
	General	SC	S T	OB C	Physic ally challe	Total	Gen eral	SC	S T	OB C	Physicall y challenge	Total
					nged						d	

UG	375	21	1	198	-	664	UG	283	42	-	202	-	575
PG	29	-	1	29	-		PG	20	2	-	26	-	

## B.Tech:

Demand ratio = (total no: of students admitted / total no: of seats available) x 100

$$= (527/630) \times 100 = 83.65\%$$

Drop out 
$$\% = (3/527) \times 100 = 0.57\%$$

## M.Tech:

Demand ratio = (total no: of students admitted / total no: of seats available) x 100

$$= (48/138) \times 100 = 34.78\%$$

Drop out 
$$\% = (4/48) \times 100 = 8.33\%$$

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

## **GATE** coaching

No: of student beneficiaries: 15

5.5 No: of students qualified in these examinations

- NET Nil
- SET/SLET
- GATE 7
- CAT 3
- IAS/IPS Nil
- State PSC Nil
- UPSC Nil
- Others -

## 5.6 Details of student counseling and career guidance

1. Regular Soft Skills classes are conducted as part of the Time Table right from First year.

First Year - English Language Lab

Second Year - INFOSYS Business English Certification Course

Third Year - Resume Buliding, Interviews, Group Discussion training

Fourth Year - Aptitude Test Training (Offline and Online)

- 2. Career Guidance classes are conducted in each department regularly.
- 3. Personal Counseling is given to students by in-house student Counselor regarding personal as well as other grievences faced by the students.
- 4. Placement coaching by the agency TIME

No: of students benefited 2197 (all B.Tech students)

# 5.7 Details of campus placement

On campus			Off campus
Number of organizations visited	Number of students participated	Number of students placed	Number of students placed
Microsoft		1	
Infosys		36	
IBS Software Services		2	
Thoughtline technologies		9	
SunTec		5	
IVTL Indoview		1	
QBurst		2	
Travancore Analytics		3	
Ospyn Technologies		7	
Think and Learn Pvt Ltd		3	
H&R Block		2	
InApp		5	
Axis Bank		8	
		Total offers	84

- 5.8 Details of gender sensitization programmes Nil
- 5.9 Students activities
- 5.9.1 No: of students participated in Sports, Games and other Events
  - State/University level

**KTU-** 109, South zone –11, Interzone – 69, Kerala University - 210

• National level

KTU- 12, Kerala University South Zone – 5, All India - 19

• International level - Nil

## No: of students participated in cultural events

• State/University level

Kerala University – 66, South zone - 4

• National level

Kerala University- 2, KTU-1

- International level Nil
- 5.9.2 No: of medals/awards won by students in Sports, Games and other Events Sports:
  - State/University level

KTU -6, Interzone -4, Kerala University - 13

- National level 2
- International level Nil
- Other achievements

1	Basketball (M)	Senior State Championship – Third					
		Represented Senior National Basketball Championship					
2	Lawn Tennis	K.G Menon Memorial Lawn Tennis tournament – Singles – Second Doubles – First					
3	Squash (M)	National Sports Club of India,Indian Junior Squash open Mumbai(pre-quarter) Indian Sqash Academy circuit Squash Championship Chennai (Quarter) Bombay Gymkhana Indian Junior open Trivandrum District Senior Squash Championship- winners Kerala Squash State Championship-winner					
4	Basketball	Junior National Basketball - Second					

## Cultural:

- State/University level 16 Kerala University – Youth festival 4<sup>th</sup> place
- National level 1
- International level Nil

## 5.10 Scholarships and financial support

	Number of students	Amount (Rs)
Financial support from institution	1. BPL (CEE merit)	1397020
mstration	2. Tuition fee waiver scheme-86	6450000
	3. Management scholarship	4006665
Financial support from government	State govt: Fisherman scholarship- 7	548338
gerenmen	Central govt:	110000
	1.Central sector scholarship-11	
	2. Merit cum means scholarship-36	900000
	3. Prime Ministers scholarship- 4	40000
Financial support from other sources	University merit scholarship	1487500
0.1101 5002005		
Number of students who received	-	-
International/National recognitions		
recognitions		

# 5.11 Student organized/initiatives

## Fairs:

- State/University level 2
- National level 1 (ADHARVA'18)
- International level Nil

## Exhibition:

• State/University level –

1	Hash
2	Project Exhibition
3	Utbhav'18

- National level Nil
- International level Nil
- 5.12 No: of social initiatives undertaken by the students -

1	Sparsham- activity Forum for ISR Activity of the
	Dept. Of CS
2	Social work & literacy programme at Poonthura by
	the Dept. Of CS
3	Baselian Computing Workshop
4	Spandanam – societal wing of Dept. of EC
5	Thanal – societal wing of Dept.of. CE
6	A visit to Snehatheeram
7	NSS housing for the poor
8	Blood donation programmes

5.13 Major grievances of students (if any) redressed: Grievances related to sessional marks

**See Annexure 5.13 (1-8)** 

## Criterion - VI

## Governance, Leadership and Management

#### **6.**1 State the Vision and Mission of the institution

**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

6.2 Does the Institution has a Management Information System?

The Institution has an effective MIS to support the decision making process at various levels of the organization. As mentioned in the last AQAR, the College Website, Hand book, Newsletter, *Organization Email* Groups for employees, WhatsApp group and MBCET directory app provide various channels for information flow. Ecoleaide, an unique and comprehensive Educational Institution Management Software has simplified various operations of the Institution including Academics, Student Management, Hostel, Library and Human Resources.

Fee remittance is a new addition in the Ecoleaide software which helps students and parents in online remittance of fees. For students travel conveniences, a new software-Transport Management System is being implemented, using which bus passes can also be issued for the students.

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

#### 6.3.1 Curriculum Development

MBCET is affiliated to Kerala University/ APJ Abdul Kalam Technological University KTU, Kerala and the Institution has curriculum flexibility in terms of Electives and content beyond syllabus. The faculty members from the Institution are also actively taking part in the University Curriculum Revision Committee Meetings.

## 6.3.2 Teaching and Learning

• Massive Open Online Courses (MOOC) and Outcome-based Teaching from student's perspective are adopted for implementing the curriculum.

• In addition to this- video lectures, online MCQ using Google docs, group MCQ with peer review, online assignment using Edmodo, mini projects, Group Seminar with Minute card and a written note on the topic, Active Collaborative Learning (ACL)teaching methods and giving away handouts to the students based on various topics also have been implemented.

#### 6.3.3 Examination and Evaluation

The following strategies are adopted to ensure quality:

- Students must take all the examinations and tests conducted in the College. A Deliberate absence from an examination/test will result in the forfeiture of their internal marks. There are two Internal Examinations in each of the Semesters as per the guidelines of APJ Abdul Kalam Technological University (KTU). The first one will be conducted after the completion of Modules 1 and 2, the second, after the completion of Modules 3 and 4. They form part of the Internal Assessment.
  - There will be scrutiny of question papers and answer sheets on a regular basis in the Departments to avoid any kind of errors or mismatches.
  - Answer sheets and assignment books will be made available to the students after the exams to make the System transparent.
  - A Grievance Redressal Cell is functioning to solve any disputes arising.
  - The Progress Report of the students will be sent to the parent/guardian after each Test and meetings will be conducted to facilitate Parent-Teacher interaction.
  - Students are encouraged to submit the assignments and other related works on time, as non/late submission of assignments will result in reduction of internal marks. Those who fail to score 45% marks for a subject in internal assessment will not be eligible to write the End Semester Examination (of corresponding subject) which is conducted by the KTU.

#### 6.3.4 Research and Development

As a result of the various steps undertaken by the college management in the area of R&D,

MBCET has been approved as Research Centre under Kerala
Technological University and PhD Programme has been started in which
candidates who qualify the PhD Entrance Test are eligible to pursue PhD
Programme under the KTU at MBCET. Five research fellows are
currently doing their PhD Program in MBCET.

The following projects have been initiated in the Department of Mechanical Engineering

- 1. ISRO Respond Funded Project
- 2. CERD Seed Money Project
- **3.** Four Internally funded projects

Two Funded Student's projects of CEDS (Automatic Ryles Tube and Smart Water Jacket) have been completed in January 2018.

 A discussion has been initiated by the Department of Mechanical Engineering for signing an MoU between MBCET and Universiti Teknologi Mara, a Malayasian University for Friendship, Cooperation and Promotion of Mutual Understanding, Academic, Cultural and Scientific Thought and Personal Exchange.

#### 6.3.5 Library, ICT and physical infrastructure/instrumentation

- A new Research Lab has been set up in Department of Mechanical Engineering for 'Experimental Investigation on Sloshing Behavior of Fluid in Various Tank Geometry'.
- Metrology and Instrumentation Lab of Department of Mechanical Engineering has been upgraded to Manufacturing Technology Lab (as per KTU syllabus).
- Library is fully computerized and functions through automated ERP library software.
- Library renewed the e-journal packages- Elsevier's Science Direct,
   American Society of Mechanical Engineers (ASME) and American
   Society of Civil Engineers (ASCE).

- Library is having computer networking facility and high speed internet connectivity is available. Wifi facility is also available at the library premises.
- MBCET campus is networked and internet enabled through 24/7, 60 mbps 1:1 leased line. A BSNL back up connection has also been added of upto 30 mbps. Leased lines are connected through firewall.

## 6.3.6 Human Resource Management

In addition to the already existing policies, Online based Faculty Appraisal System is being implemented. The new system assists and encourages good performances and it also identifies the areas of development for the faculty.

## 6.3.7 Faculty and staff recruitment

In order to ensure quality in Faculty and Staff Recruitment, applications from candidates are scrutinized and shortlisted based on their percentage of marks, institution of study and experience. The shortlisted candidates are called for a personal interview. The interview is conducted by a Panel of Experts. Based on the performance in the interview, a rank list is prepared and the selected candidates are notified.

#### 6.3.8 Industry interaction/ collaboration

- Industrial visits are conducted at the Departmental levels to enhance the interaction of students/faculties with the Industries.
- MoU's are signed with Industry for academic projects.
- Feedback is taken from Industries for Curriculum Development and Industry representatives are included in the Department Advisory Boards.
- The Institution also ensures the Industrial participation while conducting Conferences, Workshops and Seminars in the Campus.
- Two projects undertaken under Industry Interaction cell of MBCET by Department of Mechanical Engineering have been successfully completed and induction of the next batch of faculty and student induction to HLL is planned for April- May 2018.

#### 6.3.9 Admission of students

The admission norms are fixed on the basis of an agreement between the Government of Kerala and Association of Self-financing Engineering Colleges.

The College follows them and the process has been made more transparent and simple with the introduction of online submission of application, publication of rank list etc.

## 6.4 Welfare schemes for

Teaching	National Pension Scheme, Group Medical Insurance
Non- teaching	National Pension Scheme, Group Medical Insurance
Students	Group Insurance, Scholarships, Fee waiver schemes, Fee concessions for meritorious students.

6.5 T	otal co	rpus	fund	generated	7.5	lakhs
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6.6 Whether annual financial audit has been done-	Yes		No [	
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6.7 Whether academic and administrative audit (AAA) has been done?

Audit type		External		Internal	
	Yes/No	Agency	Yes/No	Authority	
Academic	Yes	KTU	Yes	IQAC	
Administrative	Yes	Vijayakumar & Easwaran Chartered Accountants	Yes	Vijayakumar & Easwaran Chartered Accountants	

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

For UG Programmes No For PG Programmes No

- 6.9 What efforts are made by the University/Autonomous College for Examinative reforms? NA
- 6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?
  NA
- 6.11 Activities and support from the Alumni Association
  - Rendezvous 2017, the grand Alumni Meet of all the Alumni of MBCET was conducted on 22 December 2017, organized by the MBCET Alumni Association-

**MBCETAA** in which the students of second batch of MBCET were honored during the function.

- Every year MBCETAA conducts Youth Excellence Award for finding the all-round performer among various Engineering colleges in Kerala. The prize money is 1 lakh sponsored by MBCETAA.
- MBCETAA awards Rs. 15000 for best final year Student Projects
- MBCETAA sponsors Outstanding Performer Award every year. It is awarded to the all-round performer in each final year batch.
- MBCEETA Contributed Rs 20,000/- for the Technical Fest of Electronics Department: Adharva'18.
- Many "Alumni Talks and Workshops" featuring alumni were organized by various departments.
  - ✓ Two day workshop on "Artificial Intelligence Deep Learning" was done by Savio Victor and Pranoy (Alumni), co-founders of air.ai.
  - ✓ A session on "How to Unlearn Formulas to Understand the Fundamentals of Signal Processing" was taken by Sanju Mathew (Alumni), CEO of Onbyz.
  - ✓ A workshop on "How to Create Arduino Based Music Player" was done by Sanju Mathew (Alumni of ECE), CEO at Onbyz & Benjamin Mathews (Alumni), VP of products at Onbyz.
  - ✓ An awareness talk by Mr. Lijoy Varghese was organized for the first year students on August 18, 2017.

## 6.12 Activities and support from the Parent-Teacher Associations

- Department Advisory Board meetings are conducted on a regular basis which involves support from parents.
- Parent feedbacks are collected regularly at the Department level.
- Parents are also encouraged to visit the Faculty and discuss the performance of their wards after the internal exams.
- PTA Executive Committe: Dr. TM George (President), Dr. Jijimon K Thomas (Vice President) and Dr. MJ Jayashree (Secretary)

## 6.13 Development programmes for support staff

- 1) Ms.Priya G (Department of Computer Science) attended a one week short term course on "Network Simulator" at the College of Engineering, Trivandrum from 19-22 December 2017.
- 2) Ms.Naicy M John (Department of Computer Science) completed 8 week NPTEL online course on "Design and Analysis of Algorithms".
- 3) Ms.Priya G, Ms.Naicy M John, Ms.Rejani L, Ms.Vichitra V.R attended FDP on RETINAS 2018 conducted by the Department of Computer Science during 23-27 April 2018.
- 4) Ms.Manju Suresh and Ms.Sarika U.S.(Department of Electronics and Communication) attended a Three day FDP on "Product Development of an IoT Device" organized by the Department of Civil Engineering, Mar Bsaselios College of Engineering and Technology from 26-28, July 2017.

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

In addition to the already existing Rain Water Harvesting, Grid Interactive Solar Plant, Biogas Plant, Solid Waste Management, Medicinal garden, Vegetable garden, Trees and greenery- initiatives are taken by the Nature Club of MBCET to make the campus eco-friendly as a result of which-

 MBCET received National Award for the BEST Clean Green Campus from the ISTE, on the occasion of 47th ISTE National Convention held at the Saintgits College of Engineering, Kottayam during 27-29 Jan 2018. The award was received based on report prepared and submitted by Ms. Nidhi M.B., APME and office bearer ISTE MBCET Chapter under Guidance of ISTE Chapter President Dr. T.M. George.

## Criterion – VII

## **Innovations and Best Practices**

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

## I. Smart Energy Program

- Initiatives taken up by the college with Energy Management Centre,
   Trivandrum to promote methods to reduce Energy consumption.
- Energy Audit Cell is functioning in the college.
- Energy Auditing
- The Energy Audit was conducted to find out the energy losses and to reduce the energy consumption without sacrificing the comfort of the students. The project was divided into 4 main areas namely, (i) Lighting (ii) Load balancing (iii) Thermal room comfort (iv) Pump Efficiency and Water Balancing.

The equipments used were either provided by the college or taken on loan from Energy Management Centre, Trivandrum.

• Equipments used:

Lux meter, Energy meter, Clip on meter, Infra Red Thermometer – funded by College and Wet and Dry Bulb Temp, Anemometer, Velocity Probe, Fluke – Taken in loan for EMC.

#### • FINDINGS:

- (i) In load balancing, initially the demand set up by the KSEB was 110KVA. As a result, the monthly penality to be paid by the College to the Kerala State Electricity Board (KSEB) was very high. In the light of the findings of the Energy Audit, the power limit was raised to 200KVA, by the Electricity Board. Thus College can save about Rs.1,21,000 per year.
- (ii) The Energy Audit detected that the efficiency of the water pump was far below the original rated efficiency. So a pump with a suitable head was suggested. The thermal comfort of the

- room and the lighting standards were compared with the National Building Code Standard.
- (iii) The performance of the Air Conditioners in CAD lab was also measured.
- The Energy Auditors were the following students of S8ME:
   Aswin S, Arjun Rakesh, Ashhad Noushad, Ananth Sankar J, Gokul S
   Jain, Biju S Krishnan, Swaroop Oomen, Jithin Mohan, Vaibhav S L,
   Vimal Dev, Vipin Kumar Y B, Vishal G Mathew with Project Guide K
   S Venkatesh, Associate Professor, MBCET.

## II. IEDC Activities:

• The following talks/ workshops by the IEDC

Sl. No.	EVENT	Resource Person	DATE
1	THINK 10X (For all Students)	Mr. Gokul Alex, SeniorManager, Business Innovation at UST Global, Thiruvananthapuram	24 FEB 2018
2	ROBOTICS MAKER WORKSHOP  (For all students)		19 – 23 FEB 2018
3	WOMEN IN ENTREPRENEURSHIP	Mrs Rina Vivekanandan, Sr Vice President of ECESIS Care	3 FEB 2018
4	RELEVANT 2018 (For all students)	Prof. Sarju Kottapuram from St. Joseph's College of Engineering and Technology &Prof. Aneesh Surendran from SNIT, Adoor	13 -14 JAN 2018
5	INTRODUCTION TO ROBOTICS (for S2 ME & S2 CS)		13 -14 JAN 2018
6	INTRODUCTION TO ROBOTICS (for S1 EEE)		07 -08 OCT 2017
7	DEVELOPER'S WEEK	organized by Mar Baselios College of Engineering & Technology, Thiruvananthapuram and Bloombloo m Dreambiz Pvt Ltd.	23 -24 SEPT 2017

8	INTRODUCTION TO ROBOTICS (for S1 ECE)		23 -24 SEPT 2017
9	INCEPTRA (For all students)	Catalyst, IEDC MBCET along with Kerala Startup Mission	21 SEPT 2017
10	PRODUCT DESIGN AND DEVELOPMENT (For all students)	Mr.Anil Kumar B S and Mr.Ani sam Varghese.	12,13 & 19,20 AUG 2017
11	OUTOFSYLLABUS (For all students)	Mr. Rohit Radhakrishnan, Co- Founder and Chief Operating Officer, Openfuel	9 AUG 2017
12	<i>e</i> -YANTRA SUMMER COURSE  (For all students)		17 -28 JULY 2017
13	GREENROOM: STARTUP- SME CONCLAVE	GREENROOM- Kerala's biggest STARTUP SME Conclave, was held at Girideepam Convention Centre, Mar Ivanios Vidya Nagar,	2 JULY 2017

## III. IEEE organized the following Activities:

- "Android App Development" workshop in association with IEEE Computer Society student chapter, MBCET on NOVEMBER 4TH 2017.
- Talk on the topic "Technology in Digital Marketing"
- A workshop on "AI and Deep Learning" in association with IEEE Computer Society student chapter, MBCET on Feb. 3rd and 4th 2018.
- A Poster Presentation was organized by the Department in association with IEEE Computer Society on 22 Jul '17 as part of the International Conference on Networks & Advances in Computational Technologies NetACT17. Around 25 students participated and showcased posters on various innovative ideas.
- A one day Workshop on "Internet of Things-IOT" by Arun Krishna of S8CSE was organized on April 29, 2017.

- Mobile making workshop: IEEE MBCET together with Robokart and Innovation Cell IIT Bombay conducted a two day National level workshop on MOBILE MAKING which was conducted on 7-10-2017 and 8-1-2018
- **Cyber security**: As part of the IEEE Day celebration a talk on Cyber Security was conducted by IEEE MBCET in association with WIE, WSU and SIGHT on 13-10-2017.
- **Android Workshop**: Workshop on the android application development was organized by IEEE Computer Society on 4-11-2017
- Sthithi'18: A flagship event of IEEE MBCET which is a two day event consisting of 6 talks and 6 workshops organized by the four societies and two affinity groups of the IEEE student branch. The event was conducted on 3-2-2018 and 4-2-2018, the details of the events are as follows

#### IV. ISTE

- ISTE MBCET Chapter in association with the Dept. of CSE and IEDC Cell organized a 2 day Workshop on "Raspberry-Pi" on 3rd and 4th Feb 2018.
- ISTE MBCET Chapter of Mar Baselios College of Engg. & Tech. conducted a 2 day workshop on "3D game design" in association with Robokart on 4th and 5th Nov 2017.

## **Project Exhibition**

- A Project Exhibition was organized by the Department in association with ISTE on 22 July '17 as part of the International Conference on Networks & Advances in Computational Technologies NetACT17 to promote and showcase the innovative ideas of students presented through the Projects. Around 20 students participated and exhibited their innovative projects which were evaluated by the academic experts and higher authorities, faculty members and all the students in the campus visited the exhibition.
- ISTE chapter regularly conducts activities and sessions for overall development of students and faculty apart from funding STTPS/conference. ISTE MBCET chapter Faculty chapter received ISTE Kerala section award for the Chapter with maximum number of programs on the occasion of the 28<sup>th</sup> Annual State

Convention of ISTE Kerala Section and National Seminar held at Govt. Engineering College, Thrissur on 9<sup>th</sup> December 2017.

• MBCET received National award for the BEST Clean Green campus from ISTE, on the occasion of 47th ISTE NATIONAL CONVENTION held at Saingits College of Engineering, Kottayam during 27-29 Jan 2018. The award was received based on report prepared and submitted by Ms Nidhi M.B., APME and office bearer ISTE MBCET Chapter under Guidance of ISTE Chapter President Dr. T.M. George.

#### V. ASME MBCET CHAPTER

- ASME MBCET Students' Chapter was formed in March, 2017 with the objective of organising events that focus on Mechanical Engineering.
   The Chapter, headed by Student Section Advisor, Mr. Jagajith S, Assistant Professor, Dept. of Mechanical Engineering and Chairman, Mr. Jayesh from S6 Mechanical, has over 100 members.
- The Chapter proudly represented the College at the international event ASME E-FEST Asia Pacific 2018 in Delh, in March (16<sup>th</sup> -18<sup>th</sup>), 2018. Student members, Harikrishnan Jayan Menon (S8), Bharath Lal (S8) and Edwin Denis Joseph (S8) represented the College in the Old Guard Competition.
- The unit organised a Mind Controlled Autobot Workshop, the first of its kind at the college during 24<sup>th</sup> 25<sup>th</sup> March 2018. The workshop gave hands on training in Robot making controlled by mind, 63 participants from various colleges, attended.
- ASME-MBCET Student Chapter in Association with FMAE conducted
  a National level workshop on ATV BIKE DESIGN AND
  DEVELOPMENT from 4th -18th July 2017.
- VI. The Department of CSE created a Blood Bank Portal and an Automated Timetable Generator.

#### VII. ASCE MBCET CHAPTER

## • ASCE MBCET Student Chapter Inauguration

The inaugural event of the ASCE Student chapter was held on 13th November 2017 at Visvesvaraya Hall. The chapter was inaugurated by the ASCE India Southern Section secretary Dr. S Basil Gnanappa and ASCE student chapter practitioner advisor Mr. Kesavan Gangadharan. The function was concluded by an interactive and quality session by Mr. Anilkumar Pandala (Managing Director, TRDCL) on the topic 'Unstructured Situations'.

## • Workshop at Laurie Baker Center, Vilapilshala

A two day workshop was organized at Laurie Baker Centre (LBC or Costford Centre), Vilapilshala, Thiruvananthapuram on 10<sup>th</sup> and 11<sup>th</sup> November 2017. Faculty from LBC gave lectures on the philosophy of Cost Effective Construction by Padmashri Laurie Baker. Hands-on training and demonstration of cost effective construction methods such as mud and bamboo construction, filler slab construction etc. gave students a great experience.

#### • Workshop on Revit Architecture

The student chapter organized a two-day workshop in association with by Intercad Systems on REVIT ARCHITECTURE. It was held on 13th and 14th of January 2018 at MBCET.

- Site visit to Greenfield Stadium, Karyavattom was on 20th January 2018. Mr
  Muthanna K M, Vice President detailed the students about every aspect of the
  stadium such as design, safety etc and guided them through all the features. It
  was a rich experience and imbued everyone with exceptional practical
  knowledge.
- Talk on "Sustainable Development and Alternative Building Techniques" by Mr. V S Jayachandran, Chairman, Builders Association of India, Trivandrum Centre was on 14th November 2017.

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

Plan of Action	Achievements
Establish a research centre	The college has been recognised as an approved research centre by the Kerala Technological University
2. Increase association, collaboration and tie-ups with industry and R&D organizations	15 project proposals are ongoing.
3. Introduce innovative teaching Learning methodologies - Active and Collaborative Learning(ACL) for selected subjects, Open Online Courses for faculty and students(NPTEL/MOOC)	<ul><li>1)ACL, MOODLE and ICT enabled classes have been introduced, to enhance the quality of Teaching</li><li>2) 13 online courses were completed out of which 2 courses were done by students.</li></ul>
4. Remedial classes for Slow-Learners and Content Beyond Syllabus Assignments for Advanced-Learners	ACL, remedial classes, peer group learning and booklets were introduced for Slow Learners whereas Advanced Learners were given Project based learning and content beyond syllabus.
5. A Parents-Industry Databank is to be created and to be shared among the departments to identify the parents who can provide support to students in obtaining internships and industry projects	Prepared database of parents

6. Organising STTPs at the end of each semester, for the benefit of faculty Conduct in-house training for Technical Staff in relevant areas	<ol> <li>5 day STTP on OPTIMISATION         TECHNIQUES for Engineering         Applications.</li> <li>5 Faculties attended STTP organised by (IIT         Madras course at MBCET) from 21/4/2017         to 23/4/2017</li> <li>Organized FDP in Cyber security RETINAS         18 from 23 to 27 April 2018</li> <li>FDP's i) Product development of an IOT         device ii) FDP on Advances in Pavement         Technology</li> <li>FDP Distance Learning Course through         Remote Centre (NMEICT) - ISTE STTP on         Electric Power Systems organized by IIT         Kharagpur. Training sessions on Ansys,         FPGA, PSCAD for Faculty &amp;Tech.Staff</li> <li>STTP on Advancements in Power         Electronics, Drives for Grid Connected         Renewable Energy SystemsTraining         sessions on Softwares like MATLAB,         PSPICE &amp; Familiarization of Equipments&amp;         Components for Technical staff.</li> <li>3 day training on Competence Enhancement         Training Programme for Technical Staff         (ME)</li> <li>Workshop on Soft Computing for Biomedical         Applications Towards 5G - Technologies         and Challenges 3/07/2017 to 7/07/ 2017 and         18 Dec '17 to 22 Dec '17.</li> </ol>
7. Organise International Conferences	3 International Conferences namely Network & Advances in Computational Technologies (NetAct17) Department of CSE, International Conference on Circuits and Systems, (ICCS2017) Department of ECE, International Conference on Infrastructure Development Issues, Innovations and the Way Forward (ICID2018) Department of CE were organized.
8. Research papers based on student projects for inclusion in Department journal	– published 82 research papers.

9. Conduct technical fests, Publish newsletters of department associations and Encourage student participation in professional bodies, cells & club activities

In-house Research Project:

- 1) UTBHAV, a Techno Cultural Fest was conducted by the department of CE
- Thanal, a social body under the department of CE distributed food kits to Okhi-Cyclone affected families
  - 2 a) Thanal in association with Pallium India on the occasion of world Pallium Day organized cultural Programmes for palliative care patients and distributed kit consisting of food, clothes etc to them
  - 2 b) Thanal initiated a housing project from the profit of previous Utbhav
  - 2 c)Thanal distributed old and useable clothes to various orphanages
  - Baselian Computing Workshop
     was conducted on 12th and 13th of
     October, 2017
  - 2) Two activities per-semester for the schools students at Chengalchoola, slum area of the city.Programmes were held on 24<sup>th</sup> February, 2018 and September, 2018
  - 3) World Vision e-outreach Activity-2 Event per semester.Held on 24<sup>th</sup> February 2018 and September, 2018
  - 4) Fund raising activity for charity- Hash was held in January 2018
  - 5) Hands –on Workshop for school students on topics related to Electricity

10. Collection of feedback on curriculum from the students at the end of each semester, Conduct of Exit survey for S8 students, Collection of feedback from faculty regarding curriculum; provide inputs to Curriculum Development Committee once in a year	<ul> <li>6) Village Adoption for creating     Awareness on Energy Saving, and     extend activities to promote Eco-     friendly practices in Daily Life.</li> <li>7) Conducted Adharva, the Technical Fest     by the association of the department of     EC was conducted on 24<sup>th</sup> Feb'18</li> <li>8) Conducted a talk on Cancer awareness     31/01/2018</li> <li>9) Social service activities were conducted     twice in a semester by Spandanam, the     social service wing of the Department of     EC</li> <li>10) Brand-building activities among school     students by arranging exhibitions, lab     visits, training, talks etc.</li> <li>Feedback is collected in the prescribed format</li> <li>1 At the end of each semester</li> <li>2 Annually for the teaching staff and     technical staff</li> <li>3 And Orally</li> </ul>
11 Submission of research project proposals for Internal and External Funding	<ul><li>a) 13 external projects worth Rs.36,35,500 are there of which 2 have already been are already completed.</li><li>b) 17 Internal Projects worth Rs.14 lakhs.</li></ul>

12 Arrange talks to give awareness to	- The B'Hub which facilitates innovation,
students regarding entrepreneurship,	knowledge sharing, training and networking
facilitate industry relevant training	promotes entrepreneurship on the campus
programs at BHub	besides the IEDC.
13 Activities such as pre-placement training, talks on career opportunities, Industry linkages to enhance placement and career prospects	- Training on FUSION 360 software, Personal grooming session and soft skill training was conducted by MalayalaManorama in association with Proctor and Gamble, Edwise orientation talk and Internship fair were provided for students by the Training and Placement cell.
14 More interaction with Alumni and	Regular meetings of alumni and social
launch of new Alumni Chapter	networking are conducted
	<ol> <li>Finishing schools for Alumni &amp; Final yrs to enhance their practical skills on softwares.</li> <li>Upgrade/Update the Alumni Database regarding their higher studies status/ job profile</li> <li>Prepared a data base of employment details of parents to identify prospective employers from them. Resume of eligible students sent to employers through alumini and referrals.</li> </ol>
15 Provide incentives/benefits to faculty for	60% of the college share of the income
various performances in terms of	generated through External Projects is given to
academic results, industry projects and	the Principal Investigator
research outcomes and other notable	
initiatives.	
16 Addition of modules, such as HR, Library, Hostel etc. in Ecoleaide for automation of above functional units	Performance based on line appraisal system introduced.

17 Construction of new approach road as	Work in progress
part of campus beautification	
Initiate construction of new Academic Block for the Department of Electrical and Electronics Engineering.  (b) Increase Infrastructure Facility	(a) under Design Phase  (b) Modified the Mary Matha Hostel with a new building (Area: 42000 sq ft.) increasing the intake from 100 to 250.
19 Social Service Activities and best practices at department levels as well as at institute level – charity programs & societal outreach programs, eco-friendly and green initiatives	<ol> <li>Avionics Package Testing Lab (VSSC)-as an application oriented Academic initiative</li> <li>Eco-friendly cement blocks as a sustainable Initiative</li> <li>Build and help Build, Housing project for the homeless</li> <li>Cast iron recycling unit</li> <li>Mar Baselios Youth Excellence Award</li> <li>Green audit was conducted</li> <li>Pollution testing Lab</li> <li>Community Extension Programmes (details given in Criterion 7)</li> <li>Waste water recycled and used for gardening.</li> <li>Water collected through Rainwater Harvesting is purified as Drinking water.</li> </ol>

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

\*Provide the details in annexure (annexure need to be numbered as i, ii,iii)

#### **Academic Initiatives**

#### **I. A**)

#### 1. Title of the Practice:

> Eco-friendly Cement Blocks as a Sustainable Engineering Initiative.

#### 2. Goal:

> To design and implement innovative methods of Sustainable Engineering to minimize the menace of plastic.

## 3. The Context:

Every year, millions of PET bottles are discarded which become a part of the landfill, causing environmental degradation. Hence an attempt is made to make use of these discarded plastic bottles, construction waste and locally available soil to produce plastic bottle bricks.

#### 4. The Practice:

➤ Plastic bottles, construction waste and locally available soil are used to produce plastic bottle bricks. They are arranged in a particular manner and cast using cement paste to produce Eco-friendly Cement Blocks. The suitability of use of Eco-friendly Cement Blocks as a structural element has been proved by conducting a test on a wall constructed using these blocks. A bench has been constructed on the campus using these blocks near the Survey lab of the Civil Engineering Department, as a demonstration.

#### 5. Evidence of Success:

- ➤ Using plastic bottle bricks as filler reduces the amount of cement to be used in the construction of concrete blocks.
- ➤ Reducing the quantity of cement in construction helps to reduce the carbon dioxide emission.
- Eco-friendly Cement Blocks can be used in the construction of compound walls, partition walls, paver blocks, benches, etc.
- ➤ The Eco-friendly Cement Blocks are a means to reduce heat radiation when compared to the cement blocks normally used.

#### IB)

## 1. Title of the Practice:

➤ Avionics Package Testing Lab in association with the VSSC

#### 2. Goal:

To make the Institution a Centre of Excellence through various initiatives such as establishing linkage with R & D organizations to test Avionics packages of ISRO as a first phase and manufacturing of the same on a later phase.

#### 3. The Context:

- > The need to enhance the status of the Institution to the next higher level.
- > To increase the Industry-Institution exchanges.
- ➤ To increase the calibre and efficiency of the Institution and its constituents by enabling it to take up application oriented tasks and thereby contribute, though in a humble manner, towards nation-building.

#### 4. The Practice:

➤ The Lab is equipped with high-end test and measurement facility. It includes Thermal Chamber, Data Recorder, Synthesized Function Generators and Precision DC Sources.

#### 5. Evidence of Success:

➤ Though in the initial stage, the lab got accredited by ISRO for Avionics Small Package.

IC)

The following Best Practices started earlier are continuing successfully:

(i) Mar Baselios Youth Excellence Award

The award, with a prize money of Rs.1 lakh, memento and certificate is given every year to the Best-Outgoing Engineering student of Kerala. Ms.Anu Kuncheria(2011), Ms.Hanna Paulose(2012), Mr. Sidharth K Varma(2013), Mr. Rahul R (2014), Mr. Anadhu S B (2015), Ms. Nisha Mariam Johnson(2016) and Mr. U Balagopal (2017) have been the winners so far.

The Award, instituted as a tribute to the Founder of the College, is intended to identify and promote the pursuit of excellence among the Engineering students of Kerala.

## I C) (ii)Cast Iron Recycling

The Cast Iron Recycling unit continues to function as an effective means of Solid Waste Management. The unit is attached to the Department of Mechanical Engineering. The recycled iron is marketed properly.

#### **ISR** Initiatives

## II A) 'Build and Help Build'

- 1. Title of the practice:
- ➤ An Initiative to Promote Institutional Social Responsibility
- 2. Goal:
- ➤ To make academic pursuits application-oriented and to give it a social dimension promoting group work, providing opportunity for an exposure to community life and the harsh realities of the needy in the society.

#### 3. The Context:

Academic pursuit shows a tendency to make students highly individualistic, increasing the isolation and loneliness of the students with the result that their social commitment decreases and they are far removed from the problems of the needy. Therefore, as a lesson in value-education, the students have to be given training in social service, enabling them to inculcate noble values such as compassion, empathy, generosity and so on. The activities of the NSS Unit of the College is as ideal opportunity to achieve it, since its members belong to all the disciplines such as Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Computer Science Engineering. Even in the context of Technological Advancement there are so many people in need of a shelter, so this year also the NSS took up the task of providing a house for a needy person.

## 4. The Practice:

The student members of the NSS unit conducted a survey with the support of the authorities and identified a deserving person. The MBCET contributed Rs 5.40 lakhs to meet the expenses for the construction of the house. With the fund collected thus, the construction of the house was completed by the

Members of the NSS Unit during a camp held in December 2017. The student members and the staff did all the manual work to finish the construction of the house for a sick, helpless woman at Kallayam, a village on the outskirts of Thiruvananthapuram. The key of the house was handed over to the lady in January 2018, by Fr. John Vilayil, the Bursar of the College. More than 75 students from all the Branches of Engineering took part in this endeavour.

#### 5. Evidence of Success:

- The students got an exposure to the various problems involved in the construction of a house, even though a small one.
- The students were enriched with the experience of community work, crisis management and hands on experience in the real problems of homeless.

## **II B**) Community Extension Activities

- (i) The Civil Engineering Department of MBCET conducted Utbhav 2k17 and raised an amount of Rs. 60000/- for charity.
- (ii) Thanal a social body under the Civil Engineering Department in association of Pallium India collected and distributed an amount of Rs.20000/- to the needy people identified by the Pallium India. Thanal distributed food kit also to 40 families in the Okhi-Cyclone affected area, in Trivandrum.
- (iii) The Social Extension Programme of the Department of Computer Science and Engineering 'SPARSHAM' was conducted on 24<sup>th</sup> February 2018 in the college campus. Students organized various recreation activities for a group of 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> standard school students from Poonthura. Activities included a workshop on CPU Assembly and Augmentated Reality so as to create an awareness about Future Technologies among the young minds. More than 20 students participated in the programme.
- (iv) As part of Community Extension Programme in association with the World Vision, a team of faculty members and students from the Department of Computer Science visited "Poonthura" housing colony in September 2017 and conducted various events to motivate the students. The visit was mainly intented to get a first- hand knowledge of the educational facilities available

- to the children living there. The visits and discussions with the parents, social service volunteers and children were facilitated by the representatives of the N.G.O.: "World Vision"
- (v) The Staff Members of ECE Department gave financial assistance to the Devaki Warrier Memorial Women's Studies & Empowerment Centre, to give free food for cancer patients on 18 February, 2018.
- (vi) Students of S6 EC1 sponsored a one day meal for the inmates of Kerala State Council for Child Welfare on 23<sup>rd</sup> December 2017.
- (vii) Spandanam, the Social Service Wing of ECE, organized various Welfare
  Activities such as providing free accommodation and food for cancer
  patients, sponsoring a one day meal for the inmates of Kerala State
  Council for Child Welfare.

#### 7.4 Contribution to environmental awareness / protection

- Celebrated Environment day on 5 June'18 by Planting Trees.
- 'PRAKRUTI', The Nature club of MBCET, an organization of nature lovers from various departments of the college has been active on the campus since March 2015. Its Main objective is to develop an awareness of and encourage an interest in the environment among its members and the community through meetings, talks, tree walks etc. to help them be aware of the concept of ecological balance through environmental education programmes.
- To minimize the use of plastics, members of Nature Club prepared posters on the topic "Impacts of plastic and proper disposal of it". A tutorial on paper bag making was conducted for the Members of Nature Club on 21 April 2017.

## • Pollution Testing Unit

• Established a Pollution Testing Unit attached to the Department of Mechanical Engineering an AVL DiGAS44N analyser capable of measuring five exhaust gases namely Carbon monoxide, Carbon dioxide, Hydrocarbon, Nitrogen oxide and Oxygen. The machinery is for diesel pollution testing with remote control and inbuilt calibration check suitable for free acceleration test procedure as per the latest ARAI specification. Both equipments are certified by Automotive Research Association of India (ARAI).

- The Exhaust Gas Analyzer has been used in projects related to development and testing of alternate fuels. Recently two projects have been completed. A technical paper has been sent to an international conference.
- 7.5 Whether environmental audit was conducted?

- 7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)
  - The College has been recognized as an approved Research Centre of the Kerala Technological University.

# 8. Plans of institution for next year [2018-2019]

- Enhance quality of Teaching and Learning by introducing innovative Teaching Methods.
- Prepare and submit project proposals for external funding and collaboration with other Research Organisations, industries and government agencies.
- 3. Organize International Conference and National Level Workshops.
- 4. Explore opportunities for International Collaborations.
- Periodically modernise Labs to meet the requirements as well as enhancement of curriculum.
- 6. Set-up a future technologies lab in the campus.
- Initiate skill development programs in upcoming technologies such as AI, Blockchain and Robotics.
- Create more internship opportunities for students in association with the industry.
- Provide more training and exposure to students to enhance their placement opportunities.
- 10. Encourage faculty and students towards entrepreneurship.
- 11. Provide quality enhancement programs for the faculty.
- Organise activities for students and staff towards inculcation of values and commitment to society.

Name	Name T.M. GEORGE
Dr George Zacharie	Mar Bazelios College of Engineering & Technology Mar Ivanios Vidyanagar Naianchira, Thinwananhapuram-15
Byllacket	- Song
Signature of the Coordinator, IQAC	Signature of the Chairperson, IQAC

MBCET as an Affiliated Institution follows the Academic calendar prepared by the Kerala Technological University.

## Annexure No. Part A-2.15



## APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

## Academic Calendar July 2017 – July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

Mon	Day		July 2017		August 2017		September 2017
Tue							
Thu				1	Classes,		
Fri				_			
Sat   1	Thu			3			
Sun   2   6   7   Course Committee Meeting   3   1"Onam	Fri						Onam Vacation Begins Bakrid
Mon   3							
Mon	Sun			6		3	1 <sup>st</sup> Onam
Wed   5	Mon			7		4	Thiruvonam
Nation	Tue			8		5	
Fri   7		5					SreeNarayana Guru Jayanthi
Sat   8	Thu						
Sun   9							
Mon   10							
Need   12		10					Re-Opening
Thu	Tue	11		15	Independence Day	12	Sreekrishna Jayanthi
Fri	Wed	12		16	Registration Ends	13	Publish Attendance
Sat   15   19   16   16   Test 1 to be Completed	Thu	13		17		14	
Sun   16	Fri	14		18		15	
Mon         17         Commencement of Orientation programme for new entrant.         21         18           Tue         18         22         19           Wed         19         23         20           Thu         20         24         21         SreeNarayana Guru           Fri         21         25         22         Publish Test 1 Marks           Sat         22         26         23           Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         Mahanavami         Muharram           Sun         30         Vijayadasami , Muharram	Sat	15		19		16	Test 1 to be Completed
Mon         17         Orientation programme for new entrant.         21         18           Tue         18         22         19           Wed         19         23         20           Thu         20         24         21         SreeNarayana Guru           Fri         21         25         22         Publish Test 1 Marks           Sat         22         26         23         23           Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         Mahanavami         Muharram           Sun         30         Vijayadasami , Muharram	Sun	16		20		17	
Wed         19         23         20           Thu         20         24         21         SreeNarayana Guru           Fri         21         25         22         Publish Test 1 Marks           Sat         22         26         23           Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         Mahanavami         Vijayadasami , Muharram           Sun         30         Vijayadasami , Muharram	Mon		Orientation programme for	21		18	
Thu         20         24         21         SreeNarayana Guru           Fri         21         25         22         Publish Test 1 Marks           Sat         22         26         23           Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         Mahanavami         Vijayadasami , Muharram           Sun         30         Vijayadasami , Muharram	Tue	18		22		19	
Fri         21         25         22         Publish Test 1 Marks           Sat         22         23         23         24         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         30         Vijayadasami , Muharram           Sun         30         Muharram	Wed			23		20	
Sat   22   26   23	Thu			24		21	
Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         30         Vijayadasami , Muharram           Sun         30         Muharram	Fri	21		25		22	Publish Test 1 Marks
Sun         23         KarkadakaVaavu         27         24           Mon         24         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         30         Vijayadasami , Muharram           Sun         30         Muharram	Sat	22		26		23	
Mon         AICTE Orientation Programme         28         Birthday of Ayyankali         25           MTu         25         AICTE Orientation Programme         29         26           Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         30         Vijayadasami , Muharram           Sun         30         Muharram			KarkadakaVaavu				
Wed         26         KTU Orientation Programme         30         27           Thu         27         Sankethapravesam2017         31         28           Fri         28         KTU Orientation Programme         29         Mahanavami           Sat         29         30         Vijayadasami , Muharram           Sun         30         Wijayadasami , Muharram	Mon	24	AICTE Orientation Programme	28	Birthday of Ayyankali	25	
Thu   27   Sankethapravesam2017   31   28     Fri   28   KTU Orientation Programme   29   Mahanavami     Sat   29   30   Vijayadasami , Muharram     Sun   30	MTu		AICTE Orientation Programme	29		26	
Fri 28 KTU Orientation Programme 29 Mahanayami Sat 29 30 Vijayadasami , Muharram	Wed		KTU Orientation Programme	30		27	
Sat 29 Sun 30 Vijayadasami , Muharram	Thu	27	Sankethapravesam2017	31		28	
Sun 30 Muharram	Fri		KTU Orientation Programme			29	
	Sat					30	
Mon   31	Sun						
	Mon	31					

# Annexure No. Part A-2.15



## APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

# Academic Calendar July 2017– July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

Day		October 2017		November 2017		December 2017
Mon						
Tue						
Wed			1			
Thu			2			
Fri			3		1	
Sat			4		2	Milad-i-Sherif
Sun	1		5		3	
Mon	2	Gandhi Jayanthi	6		4	Commencement of S1/S3/S5 Exams Exam S1/S5 Slot A
Tue	3		7		5	Exam S3 Slot F
Wed	4		8		6	Exam S1/S5 Slot B
Thu	5		9		7	Exam S3 Slot A
Fri	6	Publish Attendance	10		8	Exam S1/S5 Slot C
Sat	7		11		9	
Sun	8		12		10	
Mon	9		13		11	Exam S3 Slot B
Tue	10		14		12	Exam S1/S5 Slot D
Wed	11		15		13	Exam S3 Slot C
Thu	12		16		14	Exam S1/S5 Slot E
Fri	13		17		15	Exam S3 Slot D
Sat	14		18	Zonal level Sports meet  To be completed	16	
Sun	15		19		17	
Mon	16		20		18	Exam S1/S5 SlotF
Tue	17		21	Course Committee/Class Committee Meeting	19	Exam S3 Slot E
Wed	18	Deepavali	22		20	
Thu	19		23	Last date for evaluation of Jury/Practicals	21	University Sports Meet
Fri	20	Test 2 to be Completed	24	Classes End, Publish Internal Marks, Publish Attendance	22	
Sat	21	College level Sports meet To be completed	25		23	Christmas Vacation Begins
Sun	22	<u> </u>	26		24	
Mon	23		27	Forward Attendance & Internal Marks to KTU	25	Christmas
Tue	24		28		26	
Wed	25		29		27	
Thu	26		30		28	
Fri	27				29	
Sat	28				30	
Sun	29				31	
Mon	30	Publish Test 2 Marks				
	31					· · · · · · · · · · · · · · · · · · ·

## Annexure No. Part A-2.15



### APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

## Academic Calendar July 2017 – July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

Day		January 2018		February 2018		March 2018		
	1	Registration Starts		· · · · · · · · · · · · · · · · · · ·		****		
Mon		Commencement of Even						
		Semester Classes						
Tue	2	Mannam Jayanthi						
Wed	3	-						
Thu	4		1		1			
Fri	5		2	Publish Attendance	2	Publish Attendance		
Sat	6		3		3			
Sun	7		4		4			
Mon	8	Course Committee/Class	5		5			
		Committee Meeting						
Tue	9		6		6			
Wed	10		7		7	Land Land Conference Provides Provides		
Thu	11		8		8	Last date for forwarding the list of the external examiner to the University by the cluster conveners (M.Tech/M.Arch/M.Planning)		
Fri	12	Registration Ends	9	B.Tech S1/S3/S5 result declaration	9			
Sat	13		10	Test 1 to be Completed	10	Test 2 to be Completed		
Sun	14		11		11			
Mon	15		12		12			
Tue	16		13	Maha Shivratri	13			
Wed	17		14	Publish Test 1 Marks	14			
Thu	18		15		15			
Fri	19		16	Tech Fest	16	Publish Test 2 Marks		
Sat	20		17	Teen Test	17			
Sun	21		18		18			
Mon	22		19		19			
Tue	23		20		20			
Wed	24		21		21			
Thu	25		22		22			
Fri	26	Republic Day	23		23			
Sat	27		24		24			
Sun	28		25		25			
Mon	29		26		26			
Tue	30		27		27			
Wed	31		28		28			
Thu					29	Maundy Thursday		
Fri					30	Good Friday		
Sat					31			
Sun								
Mon								
Tue								

## Annexure No. Part A-2.15



#### APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

## Academic Calendar July 2017 – July 2018

(B.Tech, B.Arch, M.Tech, M.Arch, M.Planning, MCA and Evening B.Tech&M.Tech) Please see separate Academic Calendar for MBA

Day		April 2018		May 2018		June 2018		July 2018
Mon								
Tue			1	May Day				
Wed			2	Exam S2 / S6 Slot D				
Thu Fri			3	Exam S4 Slot C Exam S2 Slot E1/S6 Slot E	1	Commencement of Supplementary	1	
			4	Exam 32 Slot El 30 Slot E		Exams Exam S1 Slot A		
Sat			5		2		<u> </u>	
Sun Mon	2	Easter	6 7	Exam S4 Slot D	3	Exam S3 Slot A	1 2	Exam S6 Slot A
Tue	3		8	Exam S2 Slot E2/S6 Slot F	5	Exam S1 Slot D	3	Exam S6 Slot B
Wed	4		9	Exam S4 Slot E	6	M.Tech/M.Arch/M.Planning Viva begins Exam S3 Slot B	4	Exam S6 Slot C
Thu	5		10	Exam S2 Slot E3 - Commencement of Summer Courses	7	Exam S1 Slot E	5	Exam S6 Slot D
Fri	6	Course Committee/Class Committee Meeting	11	Exam S2 Slot F1- Last date for submission of project report in the college (M.Tech/M.Arch/M.Planning)	8	Exam S3 Slot C  B.Tech S4 result declaration	6	Exam S6 Slot E
Sat	7	College level Arts fest To be completed	12		9		7	
Sun	8		13		10	B 65	8	
Mon	9	Publish Internal Marks, Summer Course Registration	14	Exam S2 Slot F2	11	Exam S3 Slot D	9	Exam S6 Slot F
Tue	10 11	Last date for evaluation of	15 16		12	Exam S3 Slot E	10 11	Exam S2 Slot A
Wed	11	Last date for evaluation of Jury/Practical's	16		13		11	Exam S2 Slot A
Thu	12	Classes End, Publish Attendance	17	University Arts Fest	14	B.Tech S6 result declaration	12	Exam S1/S2 Slot B1
Fri	13	Forward Attendance & Internal Marks to KTU	18		15	Id-ul-Fitr	13	Exam S1/S2 Slot B2
Sat	14	Vishu	19		16		14	
Sun Mon	15 16		20	Exam S5 Slot A (Suppl'y)	17 18		15 16	Exam S1/S2 Slot
								C1
Tue	17		22	Exam S5 Slot B (Suppl'y)	19		17	Exam S1/S2 Slot C2
Wed	18		23	Exam S5 Slot C (Suppl'y)	20	M.Tech/M.Arch/M.Planning Viva ends	18	Exam S2 Slot D
Thu	19		24	Exam S5 Slot D (Suppl'y)	21	Exam S3/S4 Slot F1	19	Exam S1/S2 Slot E1
Fri	20		25	Exam S5 Slot E (Suppl'y)	22	B.Tech S2 Result Declaration Exam S3/S4 Slot F2	20	Exam S1/S2 Slot E2
Sat Sun	21		26 27		23		21	
Mon	23	Commencement of S2/S4/S6 Exams Exam S2 / S6 Slot A	28	Exam S5 Slot F (Suppl'y)	25	Exam S4 Slot A	23	Exam S2 Slot E3
Tue	24	Exam S4 Slot F	29	Last date for M.Tech/M.Arch/M.Planning Project report to the university by the principal	26	Exam S4 Slot B	24	Exam S1/S2 Slot F1
Wed	25	Exam S2 / S6 Slot B	30	Summer Courses Ends	27	Exam S4 Slot C	25	Exam S1/S2 Slot F2
Thu	26	Exam S4 slot A Last date for M.Tech/M.Arch/M.Planning Project evaluation in the department committee	31	Report Eligibility of Students after Summer Course	28	Exam S4 Slot D	26	_
Fri	27	Exam S2/ S6 Slot C			29	Publication of M.Tech/M.Arch/M.Planning Results Exam S4 Slot E	27	
Sat	28				30		28	
Sun Mon	29 30	Exam S4 Slot B					29 30	
Tue	50	Estati Of Olot B					31	
Wed								

#### Annexure No.1.3.1.-A

#### **PARENTS**

- Start value added course and training.
- Promote startups.
- Improve communication of students.
- Tie up with industry to be improved.
- Upgrade institutions to deemed university status.
- Collaborate with premium institutions.
- Make students visit construction sites.
- Governance and administration to be made student friendly.
- Provision of mobile phone locker at college bus bay.
- Labs must be accredited by NABL or similar agencies.
- HRD for employee training and career development.
- Continuing education for professionals working in the institutions.
- Give more project work and assignments for entrepreneurship development.

#### **ALUMNI**

- Focus on industry oriented teaching and learning strategy.
- All final year students should be made aware of competitive exams.
- Finishing schools for students.
- Awards for outstanding teachers.

#### **FACULTY**

- Regular Faculty Development and Skills Development Programmes.
- Encourage adjunct faculty scheme.
- Establish center for continuing education.
- Establish well equipped research labs.
- Expand central library.

#### Flexible timing. TECHNICAL STAFF

- Establish family quarters.
- Start consultancy wing.
- Technical training for technical staff.

#### **STUDENTS**

- Promote Outreach Programmes in economically backward regions.
- Form parent teachers' association.

## Annexure No.1.3.1.-B

## **EMPLOYER SURVEY**

Sl. No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor	Rating in scale of 5
1.	Ability to apply technical knowledge	8	2	2	0	0	4.50
2.	Skills and ability to work	6	4	2	0	0	4.33
3.	Willingness to learn new things	7	4	1	0	0	4.50
4.	Attitude towards work	5	5	2	0	0	4.25
5.	Discipline	7	4	0	1	0	4.42
6.	Ability to function in a team	8	2	2	0	0	4.50
7.	Management skills	4	6	2	0	0	4.17
8.	Adaptability to stress and change in environment	5	6	1	0	0	4.33
9.	Communication and presentation skills	9	0	3	0	0	4.50
10.	Practice of professional ethics	6	4	2	0	0	4.33

## Annexure No.1.3.1.-C

## **ALUMNI SURVEY**

Sl No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor	Rating in scale of 5
1.	How competent you feel in the application of the concept of Basic science and Mathematics?	7	18	5	1	0	4.00
2.	How comfortable are you with the fundamental engineering knowledge?	2	17	8	4	0	3.55
3.	How do you rate your knowledge in Electronics & Communication engineering subjects?	0	16	12	3	0	3.42
4.	How do you rate your ability to apply principles of engineering design?	3	10	12	6	0	3.32
5.	How do you rate your ability to analyze data, interpret them and make use of the data for design?	8	9	12	2	0	3.74
6.	How do you rate the knowledge you gained regarding latest technologies, designing and conducting experiments etc.?	3	11	13	4	0	3.42
7.	How good is your ability to identify, formulate, and solve engineering problems?	3	14	10	4	0	3.52
8.	How can you rate your oral communication and presentation skills?	8	13	7	2	1	3.81
9.	How effective is your written communication skills?(Ability to write effectively)	7	19	5	0	0	4.06

10.	How do you rate your ability to function on teams?	9	16	6	0	0	4.10
11.	How do you rate your management skills? (Ability to set priorities/goals, coordinate tasks/projects, budget resources and implement solutions).	8	15	8	0	0	4.00
12.	How do you rate your understanding of the ethical and professional responsibilities of an engineer?	11	16	3	1	0	4.19
13.	How do you rate your understanding of the social and global issues that have to be considered while providing engineering solutions?	8	13	8	2	0	3.87
14.	How do you rate your understanding of the need for and the ability to engage in life-long learning?	12	13	6	0	0	4.19
15.	How do you rate the structure of the curriculum in providing in-depth education in Electronics & Communication Engineering area?	5	16	7	2	1	3.71
16.	How well did your undergraduate curriculum prepare you for your academic/professional career?	7	15	7	2	0	3.87
17.	How do you rate the ECE Department on the whole (academic, co-curricular, extra-curricular)?	12	14	5	0	0	4.23
18.	How do you rate MBCET on the whole (academic, co-curricular, extracurricular)?	12	13	5	1	0	4.16

## Annexure No.1.3.1.-D

#### **ALUMNI SURVEY**

Sl No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor	Rating in scale of 5
1.	How competent you feel in the application of the concept of Basic science and Mathematics?						
2.	How comfortable are you with the fundamental engineering knowledge?						
3.	How do you rate your knowledge in Electronics & Communication engineering subjects?						
4.	How do you rate your ability to apply principles of engineering design?						
5.	How do you rate your ability to analyze data, interpret them and make use of the data for design?						
6.	How do you rate the knowledge you gained regarding latest technologies, designing and conducting experiments etc.?						
7.	How good is your ability to identify, formulate, and solve engineering problems?						
8.	How can you rate your oral communication and presentation skills?						
9.	How effective is your written communication skills?(Ability to write effectively)						
10.	How do you rate your ability to function on teams?						

11.	How do you rate your management skills? (Ability to set priorities/goals, coordinate tasks/projects, budget resources and implement solutions).			
12.	How do you rate your understanding of the ethical and professional responsibilities of an engineer?			
13.	How do you rate your understanding of the social and global issues that have to be considered while providing engineering solutions?			
14.	How do you rate your understanding of the need for and the ability to engage in life-long learning?			
15.	How do you rate the structure of the curriculum in providing in-depth education in Electronics & Communication Engineering area?			
16.	How well did your undergraduate curriculum prepare you for your academic/professional career?			
17.	How do you rate the ECE Department on the whole (academic, co-curricular, extra-curricular)?			
18.	How do you rate MBCET on the whole (academic, co-curricular, extra-curricular)?			

Any other comments:

#### Annexure No.1.3.1.-E

#### EMPLOYER SURVEY QUESTIONAIRE

Dear Sir/ Madam,

We trust that the graduates from our college are performing well and you are satisfied with the performance. In order to improve the performance we would like to have your frank feedback about performance of our graduates and areas for improvement. Please take few minutes of your valuable time to give comments on the following.

#### Name of employee:

#### Name of Organization:

1. For the parameters given below, tick on the scale provided to rate the graduates from MBCET employed in your organization,

Sl. No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor
i.	Ability to apply technical knowledge					
ii.	Skills and ability to work					
iii.	Willingness to learn new things					
iv.	Attitude towards work					
V.	Discipline					
vi.	Ability to function in a team					
vii.	Management skills					
viii.	Adaptability to stress and change in environment					
ix.	Communication and presentation skills					
X.	Practice of professional ethics					

2. Your suggestion regarding curriculum gaps, if any:
3. Any other suggestions / feedback
Name & designation:

## Annexure No.1.3.1.-F

## **EMPLOYER SURVEY**

Sl. No	Question/Parameter for evaluation	Excellent	Very good	Good	Fair	Poor	Rating in scale of 5
1.	Ability to apply technical knowledge						
2.	Skills and ability to work						
3.	Willingness to learn new things						
4.	Attitude towards work						
5.	Discipline						
6.	Ability to function in a team						
7.	Management skills						
8.	Adaptability to stress and change in environment						
9.	Communication and presentation skills						
10.	Practice of professional ethics						

	<u> </u>	J	,	!	l)
Any other suggestions/feedback					

### Mar Baselios College of Engineering and Technology Mar Ivanios Vidyanagar, Trivandrum-15

Ref: MBT/KTU/Ac/2015-6

Date: 17.08.2015

#### Office Order

#### **GRIEVANCE REDRESSAL COMMITTEE**

In order to provide easily accessible machinery for settlement of grievances and to adopt measures to ensure expeditious settlement of grievances of staff and students, the following Grievances Redressal Committees have been constituted.

A. Grievances Redressal Committee(Staff) addresses the grievances relating to faculty and staff members arising out of the implementation of the policies / rules or decisions of the institution which can include matters relating to increment, acting arrangements, non-extension of benefits under rules, interpretation of Services Rules, etc. of an individual nature.

The members of the committee are,

- 1. Prof. S. Viswanatha Rao, Vice Principal Chairman, Mob. 9446322590
- 2. Prof. K. M. Raju, Dean(Adm) Member, Mob. 9447450953
- 3. Prof. M. K. Giridharan, Dean(Aca) Member, Mob. 9847205057
- 4. Prof. P. N. Mohan, Dept of CE Member, Mob. 9895469631
- B. Grievances and Appeals Committee (students) addresses the grievances of the students and to consider their appeals on any decisions made by the college. The committee shall look into student's grievances which include leave, examinations, internal assessments etc.

The members of the committee are,

- 1) Prof. K. M. Raju, Dean(Adm) Chairman, Mob. 9447450963
- 2) Prof. M. K. Giridharan, Dean(Aca) Member, Mob. 9847205057
- 3) Prof. Paul Thomas, Dean(PG) Member, Mob.9037845069
- C. Women Grievances Redressal Committee(WGRC) against Sexual Harasament as contemplated under the Sexual Harasament of Women at Work Places (Prevention, Prohibition and Redressal Act, 2013).
- 1. Dr Neethu Roy, Associate Professor & HoD, CE, Mob. 9567189399, Chairman
- 2. Ma. K. S. Sunitha Krishnan, Asst Prof., CSE, Mob. 9846948909
- 3. Ms. Lani Rachel Mathew, Asst Prof, ECE, Mob. 9995877394
- 4. Ms. P. Sandhya, Aset. Prof., EEE, Mob. 9446072481
- 5. Ms. K C Linumol, Lab Instructor, Mob. 9447885721

Grievences, if any, may be lodged to any of the members of the committee. The Committee will review the case/conduct enquiry, and forward their recommendations to the Principal for further action.

Principal

To: All concerned.

Copy to: Bursar, Vice Principal, Desna, HoDs, NB, File.

08:
19
Mundes of GAC held on 13/4/18
Present: Proj. k. 14. Raye chairmen Imm: 10-00 and Prof. M. K. Crindhone Clorolin Julies Prof. Paul Frances " for Turner Pres. S. V. Rao involvi (VD)
Present: Proj. K. M. Raye chairmen tom
Prof. M. K. Crandhona Hornby Julies
Prej - Paul Fremers " faithing
Rig. S.V. Rao - inveli (VP)
Agenda: Student- greevan regarding interal
Agerda: Student- grevaru regarding interal assissment - April. 2018 (Sz. Sq. S6)
There were 18 representations   Greene regnosts from various classes. The department win best as Das follows. Compales Sugare 8 Elec. Eng. — 6 Mech Eng. — 4
regnosts from various classes. The Separtment wen
last in Dan follows.
Campula Juena 8
Mela & 4
12an ang -18
Then requests were compished by the committee Androidvally on the boars of recommendations by the concerned faculty. Conscions allerations as recommended by the Hon, true approved by the committee.
maiordially on in wans of recommendations
as recommended by the Hoos true angroced by
the committee.
The meeting come to a close by 11-30 am
6.10
Triuman.
Chiuna

#### **Annexure No 5.13 (3)**

## Mar Baselios College of Engineering & Technology

Minutes of the Grievance and appeals Committee Meeting Subject:
Venue: Conference room
Date: 13-4-18
Time: 10.30 am

Members Present: Prof K M Raju. Prof.M.K Giridharan, Prof Paul Thomas, Prof S V Rao (invitee) Leave of absence:

W	Agenda	Decisions/Deliberations	Responsibility
1	Grievances made by the students regarding the internal assessment marks-April 18	decided to approve the recommendations/supportions as to	Faculty concerned/HOD

Signature of the Chairman:

The meeting ended at 11.45.am Copy to: IAC (A 202)

Members:

Prof K M Raju, Chairman Prof M K Giridharan, member Prof Paul Thomas ,member

Mar Baselios College of Engineering & Technology

Mar Ivanios Vidyanagar, Nalanchira, Trivandrum-15

Ref: MBCET/Notice/2018-12

# **Notice**

Date: 10.04.2018

#### Sub: Internal marks

Internal marks of **S2**, **S4**, **S6 classes** are displayed on the Notice Board. Grievances if any, may be brought to the Grievances and Appeals Committee (Dean(Academic) office) duly recommended by the HoD and the Class Advisor, on or before **2.00 pm** on **12.04.2018**.

All grievances must be supported with documentary evidences.

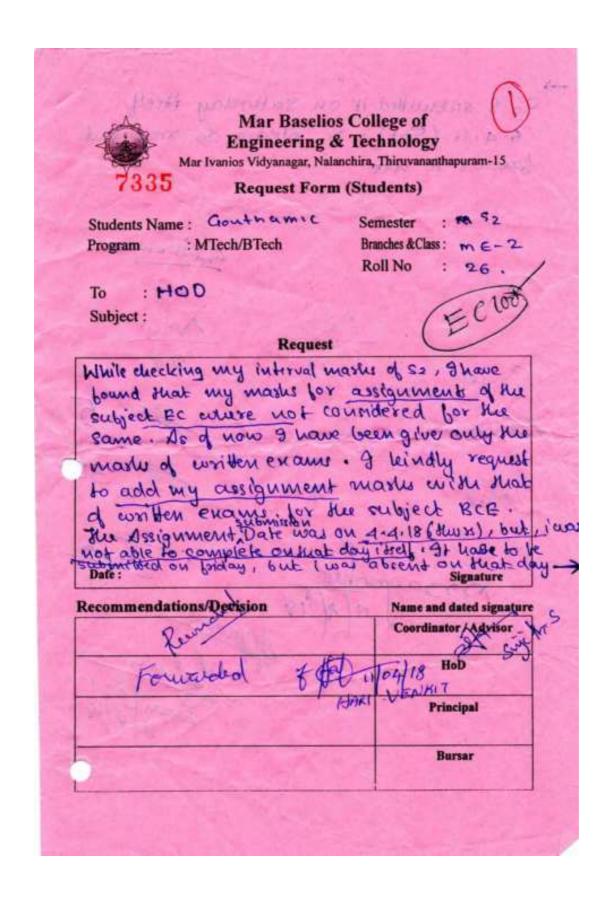
To: Notice Boards

Principal

Mar Baselios College of Engineering & Technology Mar Ivanios Vidyanagar, Nalanchira, Thiruvananthapuram-15  7389  Request Form (Students)  Students Name: Viswaviath S Semester: Sq. Program: MTech/BTech Branches & Class: ME-2 Roll No: 6.3  To: Deani Subject: Missing assignment morries-Mothen  Request  Sime I have torgot to write my  name in my assignment book, my  fineluded along with the internals  fineluded along with the internals  fineluded along with the internals  signature  Recommendations/Decision  Name and dated signature	Mar Reselies C	allers of
Students Name: Viswaviath S Semester: 34 Program: MTech/BTech Branches & Class: MEZ Roll No: 6.3 To: Dean's Subject: Missing assignment marks-Mathien Request  Sirr, Since I have torgot to write my name in my assignment book, my name in my assignment book, my mark which was evaluated was not mark which was evaluated was not kindly request you to verify and kindly request you to verify and kindly request you to verify and lot the need tull I am submidting in assignment book also dor Date: [D/4 [18] verification:  Signature  Recommendations/Decision  Name and dated signature		
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## **Annexure No 5.13 (6)**

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93/40	
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#### Annexure No 7.5

## Mar Baselios College of Engineering & Technology

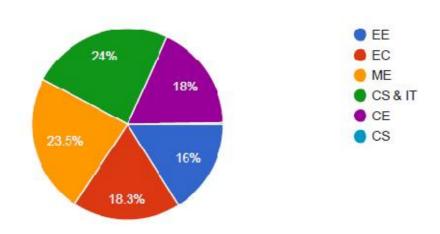
Environment Audit – 2018 for second semester students.

The audit summary is presented here with a few highlights with selected questions and its responses. This is done for the first time by these students. Here the responses are evaluated for general observation only. A total of 400 responses has been obtained based on the suggestions of the students through the responses possible environment initiatives will be considered for implementation.

1. Which of the following age group do you belong to?

## 2 Which department(s) do you represent ?

405 responses



2. What is your highest Qualification (384 responses)

UG studentPGStudentResearchscholarProject fellow97.4%

UG student 374
PG Student 5
Research scholar 3
Project fellow 2

others may be specified here20 responses

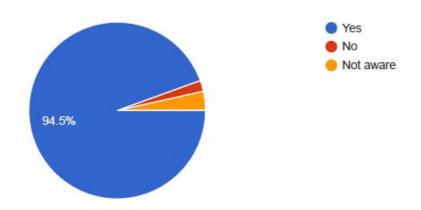
3. Do you have a green Campus ?401 responses

Yes / No93.8%

Yes 376 No 25

## 7 Do you think education has any role in energy sustainability?

400 responses

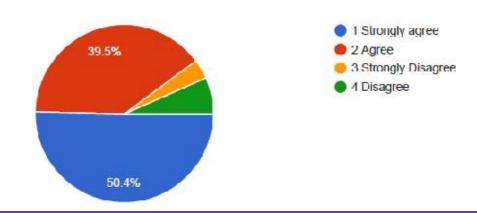


- 9. Do you support a paperless campus ?395 responses
- 1 Strongly agree2 Agree3 Strongly Disagree4 Disagree39.5%50.4%

1 Strongly agree	19 9
2 Agree	15 6
3 Strongly Disagree	14
4 Disagree	26

## 9 Do you support a paperless campus?

395 responses



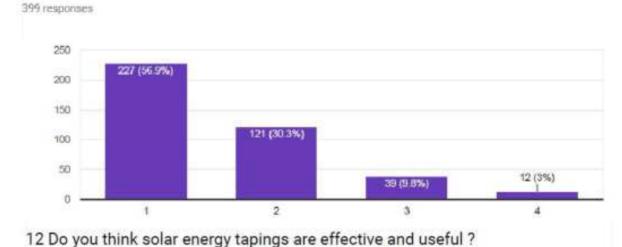
Paper & Plastic

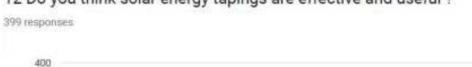
10 Give the order of your preference for a less paper consuming campus.

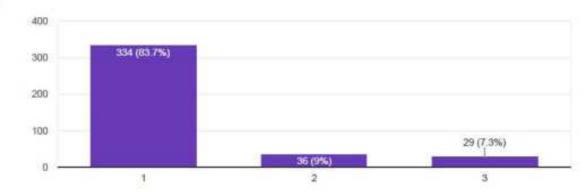
Assignment/Administration/Feedbacks/Attendance/Performance Appraisals/Performance Reports/ others may kindly be specified

	1	2	3	4	5	6	7
Assignment	184	31	16	34	18	21	82
Administration	33	139	53	38	32	62	22
Feedbacks	22	40	125	38	71	42	40
Attendance	18	39	51	160	45	41	24
Performance Appraisals	19	35	80	54	145	28	8
Performance Reports	33	63	41	33	46	144	19
others may kindly be specified	64	30	13	16	17	30	162

## 11 Do you feel that our campus buildings can be more energy efficient?





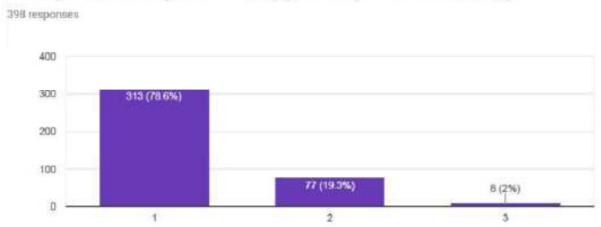


13 Do you think rainwater harvesting is relevant to the institution ?395 responses 1230100200300400348 (88.1%)26 (6.6%)26 (6.6%)21 (5.3%)21 (5.3%)

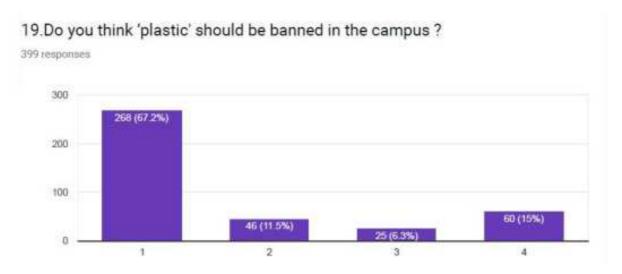
#### **Value Count**

- 1 348
- 2 26
- 3 21

14 Do you have enough trees to keep your campus Green and Shady?



15 Have you seen plastic cups being used in the cafeteria of the campus ?398 responses 131 (32.9%)267 (67.1%)



18. Are you aware of the harmful effects of pet bottles which are below 30 micron ?393 responses

 $123456050100150200250227(57.8\%)41\ (10.4\%)61\ (15.5\%)4\ (1\%)4\ (1\%)29\ (7.4\%)31\ (7.9\%)$ 

#### Waste Management

19 Have you seen bottled/canned drinks being served at the cafeteria ?397 responses 123050100150200250158 (39.8%)197 (49.6%)42 (10.6%)

#### **Value Count**

- 1 158
- 2 197
- 3 42
- 20. Do you have sufficient provisions in your campus for waste disposal ?394 responses
- 282 (71.6%)48 (12.2%)36 (9.1%)28 (7.1%)
- 21. Are you aware how plastic waste from cafeteria is disposed ?394 responses
- 51 (12.9%)39 (9.9%)56 (14.2%)248 (62.9%)
- 22.Do you think that the procurement to cafeteria is done in an energy efficient manner/Eco friendly ?389 responses
- 292 (75.1%)97 (24.9%)
- 23 Do you have a biogas plant in the campus ?391 responses

178 (45.5%)40 (10.2%)163 (41.7%)10 (2.6%)10 (2.6%)

#### **Energy Efficiency**

24. Do you know any institution which has eco-friendly facilities implemented ?391 responses

136 (34.8%)255 (65.2%)

if 'Yes' in Qn 24 Please Specify the facility and the campus69 responses

#### CET (4)

IIT (4)

MBCET (2)

Loyola School (2)

Solar energy and wind energy utilisation for the whole computer lab. Biogas plant as a degradable waste disposer, which yields energy for running canteen works.

Calicut NIT

#### PRESENT IN THE HOSTEL

Amrita University, Coimbatore

nitcalicut

NIT, CALICUT

college of engineering trivandrum

**IIT BOMBAY** 

marbaselios

MAR BASELIOS COLLEGE OF ENGINEERING AND TECHNOLOGY

mbcet, ACS

Water management, rainwater harvesting, biogas plant, etc. in MBCET

**Indian School of Business** 

**SRM** University

**OUR OWN ENGLISH HIGH SCHOOL** 

Don't remember the college name.

Shady regions in Mar Baselios College

**OLYMPIA** 

st.mary's school

stthomashssmukkola

there is many trees and its a green everywhere

rajagiri

NIT, Calicut

Solar panel, Barton Hill

BITS Goa

**BITS** 

cet

NIT KOZHIKODE

NIT calicut

KV Pangode- biogas plant

mbcet

IIT, MADRAS

Solar Energy, MBCET

Mar baselois college of engineering

marbaselios college. the biodegradable wastes are piled up and burnt and the smoke is escaped through large chimneys

**IIT CAMPUS** 

kendriyavidyalaya sap

IIItbanglore

SreeChitraThirunal College Of Engineering

Amaljothy

iit s

St. Thomas Central School

rajivgandhibiotechnolgy

St. Thomas Residential School, Mukkolakal

L'ecoleChempaka

marbaselios college

L'ecoleChempaka School, Edavacode

**MCC** 

KendriyaVidyalayapattom

SaintGits

LOYOLA SCHOOL

**BIOGAS PLANT** 

birla institute rajastan

Mar Baselios Engineering college

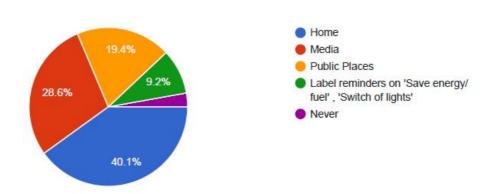
Solar plant, Mar Baselios College

IIT Bhubaneshwar

solar tapping facility-MBCET

## 25. How often are you reminded of the need to be aware of energy saving?

392 responses

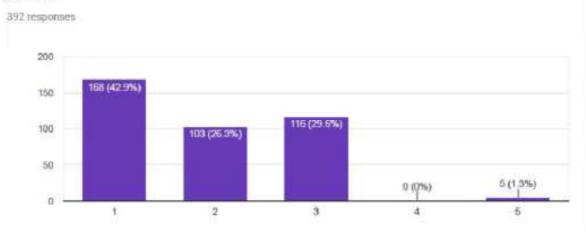


- 26. How often do you respond to above campaigns ?394 responses
- 80 (20.3%)168 (42.6%)136 (34.5%)10 (2.5%)10 (2.5%)
- 27. How often would you initiate discussion on the need for energy saving and conservation? 393 responses

Students/Spouse & Friends/Colleagues/None/Family& relatives/Family and FriendsPARENTSFamily268 (68.2%)268 (68.2%)97 (24.7%)97 (24.7%)162 (41.2%)162 (41.2%)32 (8.1%)32 (8.1%)1 (0.3%)1 (0.3%)1 (0.3%)1 (0.3%)1 (0.3%)1 (0.3%)1 (0.3%)1 (0.3%)1

Value	Count
Students	268
Spouse & Friends	97
Colleagues	162
None	32
Family& relatives	1
Family and Friends	1
PARENTS	1
Family	1

# 28. Are you aware of students working in energy Management and related areas?



29. Does your campus provide opportunities/ encouragement to students for energy efficiency ?391 responses

12340100200300247 (63.2%)57 (14.6%)69 (17.6%)18 (4.6%)18 (4.6%)

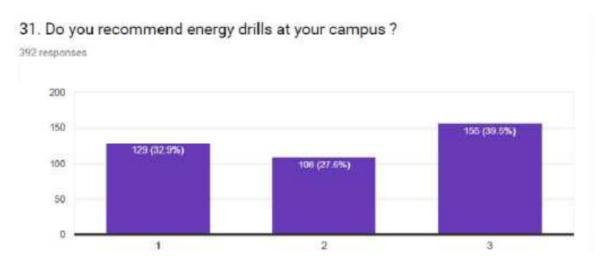
#### **Value Count**

- 1 247
- 2 57
- 3 69
- 4 18
- 30. Does your campus conduct energy review meets or Eco-friendly campaigns ?388 responses

120100200300259 (66.8%)129 (33.2%)

#### **Value Count**

- 1 259
- 2 129



if Yes in Qn.31 how often do you prefer ?47 responses

Daily/MONTHLY TWICE/Once a month/Once in every sem/...RARELY/Twice or thrice a year/Weeklymost often/ once in a week/twice a month1 (2.1%)1 (2

Value	Count
Daily	1
EVERY MONTH	1
Everyday	1
MONTHLY	2
MONTHLY TWICE	1
ONCE IN A WEEK	1
ONCE IN TWO MONTHS	1
On a monthly basis	1
Once a month	1
Once a semester	1
Once in 2 months	1
Once in a month	2
Once in every semester	1
Once in two weeks	1
One per day	1
PT PERIOD	1
RARELY	1
Rarely	1

Value	Count
Twice in a day	1
Twice in a month	1
Twice or thrice a year	1
WEEKENDS	1
WORKSHOPS	1
WORKSHOPS & AWARENESS CAMPS	1
Weekly	1
YEARLY	1
Daily	1
Monthly	5
most often	1
Mostly	1
once in 3 months	1
once in a semester	1
once in a week	1
once or twice in a semester	1
prefer the most	1
Programmes	1
twice a month	2
very often	1
Weekly	2

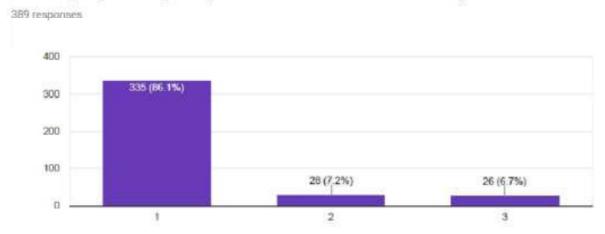
32. Will you prefer a green product based class room teaching ?389 responses

335 (86.1%)28 (7.2%)28 (7.2%)26 (6.7%)26 (6.7%)

## **Value Count**

- 1 335
- 2 28
- 3 26

## 32. Will you prefer a green product based class room teaching?



34. How do you rate the general awareness of people associated with you on Green education?386 responses

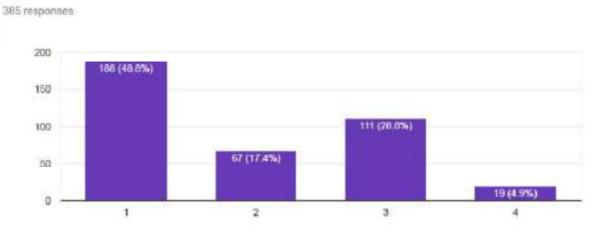
1234505010015020063 (16.3%)61 (15.8%)154 (39.9%)58 (15%)50 (13%)

#### **Value Count**

- 1 63
- 2 61
- 3 154
- 4 58
- 5 50
- 35. Do you have measures ensuring effective use of energy in your campus ?380 responses 123050100150200250223 (58.7%)59 (15.5%)98 (25.8%)

#### **Value Count**

- 1 223
- 2 59
- 3 98
- 36 Do you have automatic cut off sensors /master switches / such similar systems in your campus ?



#### 38. Kindly share additional information for being a Green Education System.84 responses

plant more trees (3)

yes (3)

not aware (2)

no more (2)

good(2)

no addition (2)

provide more dustbins (2)

garden (2)

Nil (2)

Use renewable resources, bann plastic.

more trees

aeventure trips can be provided

**NIL** 

Paperless Environment, Plants in classrooms, Pleasant atmosphere, Wifi routers placed everywhere, Digital classrooms

#### IT IS GOOD

guava trees are needed , sometimes smell from toilets often disturbs students neednss activities

Less class hours to promote more time outside to create stronger bond between students and nature.

#### **NOTHING**

#### WE SHOULD PLANT MORE TREES AND PLANTS

Make the Campus more greenery

**SOLAR** 

wifi

## I DONT LIKE TALKING TOO MUCH,I HAVE BEEN TO MANY TOPICS EARLIER AN NO DIFFERENCE WAS MADE.PEOPLE JUST DONT CARE

Show all the students the whole campus facility

plant trees make green, use less plastic . Reduce , reuse and recycle

ecofriendly

ecofriendy,

greeengooo green!!!!

To be an eco friendlycampus, ban to plastic usage, etc,....

No Addition

More trees can be planted, proper disposal of waste can be made to avoid pollution.

provide more dust bins

Minimal Usage of paper

afforestation

Use of E-books

#### **USE OF TABLETS AND LAPTOPS**

small vertical gardens in class room

#### LESS USAGE OF ELECTRICITY

light automation, vertical gardens

provide more trees

...

More tree

implement biogas facility

reduceplastics, reduce reuse

reduceplastic,paperetc

Save more energy, use renewable resourses of energy

**AVOID PLASTIC** 

reduce,reuse

PLANT TREES

Eco friendly classroom

Green education makes more suitable

The current green education system is pretty good.

Students should have a sort of comfort with the campus.

**PLANT TREES** 

MORE TREES TO BE PLANTED AND SHADES TO BE PROVIDED

yeboiii

Growing more tress

no

Go Green

reduce the use of plastic

Reduce the use of plastics

good environment

very nice

less paper usage

Eco friendly environment

keep it clean

NO COMMENTS

\_

bang pens/paper etc and use digital means

Nothing

ban plastic covers ,packaging materials

Ecofriendly nature.