

राष्ट्रीय प्रत्यायन बोर्ड

चौथा तल, ईस्ट टावर, एन. बी. सी. प्लेस, भीष्म पितामह मार्ग, प्रगति विहार, लोधी रोड, नई दिल्ली -110003

NATIONAL BOARD OF ACCREDITATION

4th Floor, East Tower, NBCC Place, Bhisham Pitamah Marg, Pragati Vihar, Lodhi Road, New Delhi 110003



F.No- 26-99-2021-NBA

Date: 22.08.2022

To,

The Principal

Mar Baselios Christian College of Engineering and Technology,
Pallikkunnu P O, Kuttikkanam,
Peermade, Idukki Dist,
Kerala, Pin - 685531

Subject: Accreditation status of programs applied by Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin - 685531.

Sir,

This has reference to your application I.D. No. 6057-29/10/2021 seeking accreditation by National Board of Accreditation to UG Engineering programs offered by Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin - 685531.

2. An Expert Team conducted onsite evaluation of the programs from 17th to 19th June, 2022. The report submitted by the Expert Team was considered by the concerned Committees constituted for the purpose in NBA. The Competent Authority in NBA has approved the following accreditation status to the programs as given in the table below:

| Sl. No. | Name of the Program(s) (UG) | Basis of Evaluation | Accreditation Status | Period of validity | Remarks |
|---------|--------------------------------------|----------------------------------|----------------------|--|---|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | Electrical & Electronics Engineering | Tier II June 2015 Document | Accredited | Academic Years 2022-2023 to 2024-2025 i.e. up to 30-06-2025 | Accreditation status granted is valid for the period indicated in Col.5 or till the program has the approval of the Competent Authority, whichever is earlier |
| 2. | Civil Engineering | | Accredited | | |

3. It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

4. The programs have been granted accreditation for 3 years. Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin - 685531 should submit the Compliance Report at least six months before the expiry of validity of accreditation mentioned above so as to be eligible for consideration by the concerned Committee in NBA for further processing of the accreditation status.

5. The accreditation status awarded to the programs as indicated in the above table does not imply that the accreditation has been granted to Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin - 685531 as a whole. As such the Institution should nowhere along with its name including on its letter head etc. write that it is accredited by NBA because it is program accreditation and not Institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously. Complete name of the program(s) accredited, level of program(s) and the period of validity of accreditation, as well as the Academic Year from which the accreditation is effective should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

Contd./_

6. The accreditation status of the above programs is subject to change on periodic review, if needed by the NBA. It is desired that the relevant information in respect of accredited programs as indicated in the table in paragraph 2, appears on the website and information bulletin of the Institute.

7. The accreditation status awarded to the programs as indicated in table in paragraph 2 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note.

8. A copy each of the Report of Chairman of the Visiting Team and Evaluators' Reports in respect of the above programs is enclosed.

9. If the Institute is not satisfied with the decision of NBA, it may appeal within thirty days of receipt of this communication giving reasons for the same and by paying the requisite fee.

Yours faithfully,


(Dr. Anil Kumar Nassa)
Member Secretary

- Encls.:**
1. Copy of Report of Chairman of the Visiting Team.
 2. Copy each of Expert Reports of the Visiting Team.

Copy to:

1. The Director of Technical Education,
Padmavilasam Rd, Fort, P.O, Pazhavangadi,
Thiruvananthapuram, Kerala 695023
2. The Registrar
APJ Abdul Kalam Technological University, Kerala
CET Campus, Alathara Rd, Ambady Nagar,
Thiruvananthapuram, Kerala 695016
3. Accreditation File
4. Master Accreditation file of the State

PART A

Chairperson's Visit Report

Undergraduate Engineering Program

TIER-II

Name of the Institution

Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O,
Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin - 685531.

Name of the Programs

1. UG-Electrical & Electronics Engineering
2. UG-Civil Engineering

Visit Dates

17th to 19th June, 2022

NATIONAL BOARD OF ACCREDITATION
NBCC Place, East Tower, 4th Floor, Bhisham Pitamah Marg, Pragati Vihar, New Delhi
110003
Tel: +91 112430620-22; 01124360654; www.nbaind.org

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Team Composition

Name of the Chairperson: Dr. Dharminder Kumar
Designation: Professor

Program 1: UG-Electrical & Electronics Engineering

| | |
|---------------------|---|
| Program evaluator 1 | Prof. D.V.S.S Siva Sarma Professor Dept. of Electrical Engineering National Institute of Technology NIT Warangal – 506004, Telangana. |
| Program evaluator 2 | Prof. S.A. Khan Professor Dept. of Electrical Engineering Jamia Millia Islamia, Jamia Nagar New Delhi – 110025. |

Program 2: UG-Civil Engineering

| | |
|---------------------|--|
| Program Evaluator 1 | Prof. Radhakrishana Professor Dept. of Civil Engineering R.V. College of Engineering 8th Mile, Mysore Road, R.V. Vidyanikrtan Post Bangalore- 560059, Karnataka. |
| Program Evaluator 2 | Prof. Sanaga Srinivasulu Professor Dept. of Civil Engineering JNTUH College of Engineering, Kakatpally, Hyderabad, Telangana-500085. |



Institute Details

Year of Establishment: 2001

Physical Infrastructure and Ambience:

Physical infrastructure is satisfactory and Academic ambience of the institute is good.

Number of programs being run in the Institute*:

- (i) UG- 05
- (ii) PG- 00

Total Number of Students:

- | | |
|---------------------------------------|--------------|
| (i) In UG programs – Admission: 184 | Intake: 300 |
| (ii) In PG programs – Admission: N.A. | Intake: N.A. |

Name of programs applied for accreditation

1. UG-Electrical & Electronics Engineering
2. UG-Civil Engineering

**to be verified from SAR*



Information for Evaluation

Award of Accreditation (TIER II (UG))

- 1. Accreditation for Six years will be accorded to a program on fulfillment of the following requirements:**
 - i. Program should score a minimum of 750 points in aggregate out of 1000 points with minimum score of 60 per cent in mandatory fields (i.e. criteria 4 to 6)
 - ii. Number of available Ph.D. in the department should be greater than or equal to 30 per cent of the required number of faculty, averaged over two academic years, i.e., Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
 - iii. The admissions in the UG program under consideration should be more than or equal to 75 per cent and admissions at the overall institutional level should be more than or equal to 50 per cent, averaged over three academic years, i.e., Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
 - iv. Faculty Student Ratio in the department should be less than or equal to 1:20, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
 - v. At least 2 Professors or 1 Professor and 1 Associate Professor on regular basis with Ph.D. degree should be available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
 - vi. HOD of the program under consideration possesses Ph.D. degree in the Current Academic Year (CAY).

- 2. Accreditation for Three years will be accorded to a program on fulfillment of the following requirements:**
 - i. Program should score a minimum of 600 points with at least 40 per cent marks in Criterion V (Faculty Information and Contributions).
 - ii. The admissions in the UG program under consideration should be more than or equal to 50 per cent, averaged over three academic years (including lateral entry), i.e., Current Academic Year minus One (CAYm1), Current Academic Year minus Two (CAYm2) and Current Academic Year minus Three (CAYM3).

- iii. At least one Professor or one Associate Professor on regular basis with Ph.D. degree is available in the respective department for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One(CAYM1).
- iv. The faculty student ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic years i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
- v. Number of Ph.D. available in the department should be greater than or equal to 10 per cent of the required number of faculty, averaged over two academic years
i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

No Accreditation of the program

If the program fails to meet the criteria for award of accreditation for three years, it is awarded "Not Accredited" Status

Name of the Program 1: UG-Electrical & Electronics Engineering

Marks given by Evaluators: 464

A. Department/Program Specific Criteria:

| S. No. | Criteria | Max. Marks | Marks Awarded | Remarks |
|--------------|--|------------|---------------|---------|
| 1. | Vision, Mission and Program Educational Objectives | 60 | 44 | |
| 2. | Program Curriculum and Teaching-Learning Processes | 120 | 81 | |
| 3. | Course Outcomes and Program Outcomes | 120 | 88 | |
| 4. | Students' Performance | 150 | 71 | |
| 5. | Faculty Information and Contributions | 200 | 100 | |
| 6. | Facilities and Technical Support | 80 | 52 | |
| 7. | Continuous Improvement | 50 | 28 | |
| TOTAL | | 780 | 464 | |

B. Institute Level Criteria (to be filled by the Chairman) :

| S. No. | Criteria | Max. Marks | Marks Awarded | Remarks |
|---------------------------|---|-------------|---------------|---------|
| 8. | First Year Academics | 50 | 26 | |
| 9. | Student Support Systems | 50 | 40 | |
| 10. | Governance, Institutional Support and Financial Resources | 120 | 95 | |
| TOTAL | | 220 | 161 | |
| GRAND TOTAL (A +B) | | 1000 | 625 | |

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.



Signature
(Chairman)
(Prof. Dharminder Kumar)

Name of the Program 2: UG-Civil Engineering

Marks given by Evaluators: 449

C. Department/Program Specific Criteria:

| S. No. | Criteria | Max. Marks | Marks Awarded | Remarks |
|--------------|--|------------|---------------|---------|
| 1. | Vision, Mission and Program Educational Objectives | 60 | 40 | |
| 2. | Program Curriculum and Teaching-Learning Processes | 120 | 69 | |
| 3. | Course Outcomes and Program Outcomes | 120 | 90 | |
| 4. | Students' Performance | 150 | 76 | |
| 5. | Faculty Information and Contributions | 200 | 88 | |
| 6. | Facilities and Technical Support | 80 | 59 | |
| 7. | Continuous Improvement | 50 | 27 | |
| TOTAL | | 780 | 449 | |

D. Institute Level Criteria (to be filled by the Chairman) :

| S. No. | Criteria | Max. Marks | Marks Awarded | Remarks |
|---------------------------|---|-------------|---------------|---------|
| 8. | First Year Academics | 50 | 25 | |
| 9. | Student Support Systems | 50 | 40 | |
| 10. | Governance, Institutional Support and Financial Resources | 120 | 95 | |
| TOTAL | | 220 | 160 | |
| GRAND TOTAL (A +B) | | 1000 | 609 | |

*Assessment for Criteria 8 (8.3, 8.4 & 8.5) and 10 (10.3) is different for individual program.



Signature
(Chairman)
(Prof. Dharminder Kumar)

Overall Observations

1.

| S. No. | Name of the Program | Intake | | | Admissions | Student-Faculty Ratio |
|--------|---|--------|-------|-------|---------------------------------|---------------------------------|
| | | CAY | CAYm1 | CAYm2 | Average of CAY, CAYm1 and CAYm2 | Average of CAY, CAYm1 and CAYm2 |
| 1. | UG-Electrical & Electronics Engineering | 60 | 60 | 60 | 84 (46.67%) | 1: 16.36 |
| 2. | UG-Civil Engineering | 60 | 60 | 60 | 101 (56%) | 1: 21.70 |

- Also, see the evaluator's report for the above parameters and if you disagree with the same, kindly give your comment.

2. About the progress since last accreditation (to be filled for institutes who have applied for re-accreditation)

N.A..

3. Observation on general facilities and about the programs

Kindly mention general facilities like labs, library, etc. and a general review about the programs.

Institute has satisfactory infrastructure, with Good Academic ambience. Laboratories are equipped and library is also good and has limited facility of digital library. Overall administration of institute and programs is good. Governing body and its minutes are available. Audited statements are available on website. However, there is less industry connect. More details are given in Strengths, Weaknesses, Concerns, and Suggestions.

- **1st Year**

Infrastructures (class rooms, seminar halls, staff flats, four hostels (2-boys and 2-girls), indoor and outdoor sports facilities, power backup, internet etc.), laboratories (physics lab, chemistry lab, computer centre, civil workshop, electrical workshop, electronics workshop, mechanical workshop, media centre), are good. Academic performance of students is moderate. Action taken on the results of evaluation of COs/POs is not seen much.

- **Academic ambience**

Academic ambience of the institute is good.

- **Students support systems**

Student support systems are available like mentoring, feedback, career guidance cell, training & placement, IIC, IEDC, C-RiSE, CITE.

- **Strengths, Weaknesses, Concerns, and Suggestions**

Strengths

- Green campus.
- Cleanliness at campus
- Good Academic ambience
- Infrastructure facilities are good.
- Vision, Mission statements are defined and disseminated
- Good facilities for co-curricular and extra-curricular activities through different student councils.
- Student Faculty Ratio is good in EEE.
- Placement ratio in both UG-programs (EEE and CE) is moderate.

Weaknesses

- No Sponsored R&D and Consultancy.
- Student enrolment ratio and admissions particularly in EEE.

- Stakeholder involvement particularly of students is minimal.
- CO-PO mapping needs improvement
- Quality of Question Papers is only at Remember, understanding and apply (in few cases) level.
- Attainment and assessment of CO/PO needs improvement.
- Action taken based on evaluation of POs is too general and at times irrelevant.
- Rubrics for assessment are missing particularly at first year level.
- Analysis and actions based on students' feedback of faculty & on facilities is limited.

Concerns

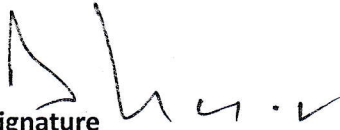
- Salary packages of students
- Involvement of students, alumni and industry
- Understanding of OBE at students level
- No Doctor
- No ambulance
- No NCC
- Cleanliness at kitchen in boys' hostel.
- Security mechanism for LPG Gas cylinders at kitchen in boys' hostel.

Suggestions for improvement

- Improvement in defining target and attainment levels, currently using fixed target levels.
- Training of faculty, in OBE, Rubrics, assessment methods etc.
- Increasing involvement of industry

4. Status of imbibing of outcome-based accreditation.

- **Formulation of PEOs, PSOs, COs and mapping carried out and implemented**
 - ✓ PEOs, PSOs, COs have been formulated and mapping has been done and implemented. However, mapping is not consistent and at times not very appropriate.
- **Methodology for assessing the attainment of outcomes**
 - ✓ Quality of Internal Test papers and Assignments are set only at remember, understand and apply (in few cases) level only.
 - ✓ Target levels are fixed for all POs.
- **Continual improvement process has been set up**
 - ✓ Target levels are fixed (i.e. 1.8) for all POs & PSOs, even then most of the POs are not attained, so the process for continual improvement is very limited and needs re-look.
- **Stakeholders (especially the faculty, HoD, students, etc.) awareness about the process**
 - ✓ Stakeholders involvement is less, particularly at students level (almost nil) and not much aware about OBE and meaningful understanding is yet to percolate to both i.e. faculty, students and among other stakeholders.


 Signature
 (Prof. Dharminder Kumar)
 (Chairman)

PART A

Evaluator's Visit Report

Undergraduate Engineering Program

Tier-II

Name of the Institution

Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist,
Kerala

Name of the Program

UG-Electrical & Electronics Engineering

Visit Dates

17th-19th June, 2022

NATIONAL BOARD OF ACCREDITATION

NBCC Place, East Tower, 4th Floor, Bhasham Pitamah Marg,
Pragati Vihar, New Delhi 110003

Tel: +91 112430620-22; 01124360654; www.nbaind.org

D. S. S. S. S.

[Signature]

Program Evaluator Summary

Overview

The Expert team of National Board of Accreditation (NBA) conducted a three-day accreditation visit from 17-06-2022 to 19-06-2022 to **Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala**, to evaluate UG Engineering program in Electrical & Electronics Engineering.

Pre visit meeting of the expert team was held on 17-06-2022 at 07:30 am in the hotel to exchange the respective findings with the evaluation team members, based on review of Self-Assessment Report (SAR) and the pre-visit evaluation reports.

During the visit, the visiting team met with Principal, **Dr. Jayaraj Kochupillai**. The briefing on the institution was given by the Principal and on the program was given by the HOD, **Dr. V.I. George**. The respective program evaluators also visited the various facilities of the program. Apart from comprehensive review of documental evidences pertaining to various accreditation criteria, the visiting team also held meeting and discussions with the following stakeholders (kindly tick).

| | | | |
|-----------|---|---------------|---|
| Faculty | √ | Staff members | √ |
| Parents | √ | Alumni | √ |
| Employers | √ | Students | √ |

The Program Evaluation Team found that (general findings about the program to be mentioned) :The Institute has been established in year 2001. The U.G., Electrical & Power Engineering programme started in the year 2002 with an intake of 60 students. This institute is under the affiliation of the **A P J Abdul Kalam University, Thiruvananthapuram**. The institute was affiliated to **Mahatma Gandhi University, Kottayam** till 2015. The admission of the students is both in 1st year level and in the 2nd year through lateral entry. The institute is accredited by NAAC with B++ grade.

Dr. V.I. George

[Signature]

Program Details

| | | | | | |
|---|--|--------------------------------|--------------------------------|----------------------------|----------------------------|
| Name of the Program: UG – Electrical & Electronics Engineering | | | | | |
| 2002 | | | | | |
| Year of Commencement | | | | | |
| Student | Year | Sanctioned Intake | | Actual Admitted | |
| | CAY (2020 - 2021) | 60 | | 23 | |
| | CAY m1 (2019 - 2020) | 60 | | 25 | |
| | CAY m2 (2018 - 2019) | 60 | | 36 | |
| | Total Students in the Programme 1st to Final Year | 2020-21 | 2019-20 | 2018-19 | |
| | | 105 | 120 | 130 | |
| Average of CAY, CAYm1 and CAYm2 | | 118 | | | |
| Faculty <small>(Attach a Copy of faculty list compared with Time Table)</small> | Regular | | CAY (2020-21) | CAYm1 (2019-20) | CAYm2 (2018-19) |
| | | Professor | 01 | 01 | 00 |
| | | Associate professor | 01 | 01 | 00 |
| | Contractual | Assistant professor | 07 | 10 | 13 |
| | | Professor | - | - | - |
| | | Associate professor | - | - | - |
| | No. of PhD available in the department | Assistant professor | - | - | - |
| | | | 02 | 02 | 00 |
| | Student-Teacher ratio (average of CAY, CAYm1, and CAYm2) (Refer criteria-5.1) | | 16.36 | | |
| | Previous accreditation (if any) | First accreditation | No. of years accredited for | — | |
| With effect from | | | — | | |
| Previous accreditation | | No. of years accredited for | — | | |
| | | With effect from | — | | |

CAY: Current Academic Year
 CAYm1: Current Academic Year minus 1= Current Assessment year
 CAYm2: Current Academic Year minus 2= Current Assessment year minus 1

Note: Consideration of Contractual Faculty means:

- All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:
 1. Shall have the AICTE prescribed qualifications and experience.
 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

D. S. S. S.

[Signature]

- v. (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2).
Number of Ph.D. available in the department should be greater than or equal to 10 per cent of the required number of faculty, averaged over two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

No Accreditation of the program

If the program fails to meet the criteria for award of accreditation for three years, it is awarded "Not Accredited" Status

Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title UG - Electrical & Electronics Engineering

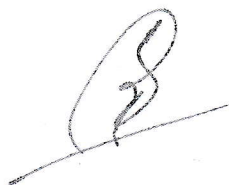
Strengths:

1. The vision and mission of the program are properly defined and displayed at appropriate locations.
2. General ambience of the campus is good
3. Young and dedicated faculty members.
4. SFR is good
5. Qualified technical staff.
6. Good Circuit & Measurement and Machine labs.

Weakness/Areas of improvement:

1. Poor enrolment ratio.
2. Poor sensitization to OBE.
2. Overall student academic performance is poor
3. Few research publications, mostly in poor quality journals.
4. Placement and higher studies record is not good.
5. In most of the courses COs are mapped with only few numbers of POs.
6. Poor implementations of pedagogical methods in teaching/Learning.

Dusad Xill



Deficiencies:

1. No research and consultancy projects.
2. No entrepreneurship.
3. No visiting/emeritus/adjunct-faculty.
4. No industry supported lab.
- 5.

Other Observations, if any:

- 1.
- 2.
- 3.
- 4.
- 5.



David Hill

Department/Programme Specific Criteria:

| S.no. | Criteria | Max. Marks | Marks Awarded | Remarks |
|--------------|--|------------|---------------|---------|
| 1. | Vision, Mission and Program Educational Objectives | 60 | 44 | |
| 2. | Program Curriculum and Teaching-Learning Processes | 120 | 81 | |
| 3. | Course Outcomes and Program Outcomes | 120 | 88 | |
| 4. | Students' Performance | 150 | 71 | |
| 5. | Faculty Information and Contributions | 200 | 100 | |
| 6. | Facilities and Technical Support | 80 | 52 | |
| 7. | Continuous Improvement | 50 | 28 | |
| TOTAL | | 780 | 464 | |



Signature

(DVS S Siva Sarna)



Signature
(Prof. Shakeb A Khan)

B-Program Assessment Worksheet Program Level Criteria - To be Assessed by Evaluator

Name of the Institution : Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala
Name of the Program: UG- Electrical and Electronics Engineering

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines (Marks) | | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) | |
|------------------------------|---|------------|--|--|---|---------------------------------------|-----------------------------|--|-------|
| | | | A. Availability of statements of the Departments (1) | B. Appropriateness/Relevance of the Statements (2) | C. Consistency of the Department statements with the Institute statements (2) | Marks | | | Total |
| 1.1. | State the Vision and Mission of the Department and Institute | 5 | | | | 01 02 02 | 05 Overall Marks for 1.1 | | |
| 1.2. | State the Program Educational Objectives (PEOs) | 5 | | | | 04 | 04 Overall Marks for 1.2 | | |
| 1.3. | Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders | 10 | | | | 02 02 04 | 08 Overall Marks for 1.3 | | |
| 1.4. | State the process for defining the Vision and Mission of the Department, and PEOs of the program | 25 | | | | 08 08 | 16 Overall Marks for 1.4 | Limited evidence of involvement of stakeholders | |
| 1.5. | Establish consistency of PEOs with Mission of the Department | 15 | | | | 05 06 | 11 Overall Marks for 1.5 | | |
| Total of Criterion 1: | | | | | | Overall Marks for Criterion 1: | | 44 | |

Dududu
Signature (Program Evaluator 1)

[Signature]
Signature (Program Evaluator 2)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guide lines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-------|--|------------|---|----------------|-------|---------------|---|
| | | | | Marks | Total | | |
| 2.1. | Program Curriculum | 20 | | | | | |
| | State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes (POs) & Program Specific Outcomes (PSOs), mention the identified curricular gaps, if any | 10 | A. Process used to identify extent of compliance of University curriculum for attaining POs & PSOs (6) B. List the curricular gaps for the attainment of defined POs & PSOs (4) | 06 02 | 08 | | Curricular gaps are identified on the basis of faculty interaction only |
| | State the delivery details of the content beyond the syllabus for the attainment of POs & PSOs | 10 | A. Steps taken to get identified gaps included in the curriculum. (letter to university/BOS) (2) B. Delivery details of content beyond syllabus (5) C. Mapping of content beyond syllabus with the POs & PSOs (3) | 00 04 02 | 06 | | No communication to University |

[Signature]
Signature (Program Evaluator 1)

[Signature]
Signature (Program Evaluator 2)

| | | | | | |
|--------|--|----|---|----|--|
| 2.2.1 | Describe the Process followed to improve quality of Teaching Learning | 25 | <p>A. Adherence to Academic Calendar (3) 03</p> <p>B. Use of various instructional methods and pedagogical initiatives (3) 02</p> <p>C. Methodologies to support weak students and encourage bright students(4) 03</p> <p>D. Quality of classroom teaching (Observation in a Class) (3) 02</p> <p>E. Conduct of experiments (Observation in Lab)(3) 01</p> <p>F. Continuous Assessment in the laboratory (3) 03</p> <p>G. Student feedback on teaching learning process and actions taken (6) 05</p> | 19 | No evidence actions to encourage bright students |
| 2.2.2. | Quality of internal semester Question papers, assignments and Evaluation | 20 | <p>A. Process for internal semester question paper setting, evaluation and effective process implementation (5) 04</p> <p>B. Process to ensure questions from outcomes/learning levels perspective (5) 04</p> <p>C. Evidence of COs coverage in class test / mid-term tests (5) 04</p> <p>D. Quality of Assignment and its relevance to COs (5) 03</p> | 15 | Quality of assignment need improvement. |

Overall
34
2.2

D. M. D. Hall
Signature (Program Evaluator1)

[Signature]
Signature (Program Evaluator2)

| | | | | | | |
|--|-----------|---|---|-----------|-----------|--|
| <p>2.2.3. Quality of student projects</p> | <p>25</p> | <p>A. Identification of projects and allocation methodology to Faculty (3) B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs(5) C. Process for monitoring and evaluation (5) D. Process to assess individual and team performance(5) E. Quality of completed projects/working prototypes (5) F. Evidences of papers published /Awards received by projects etc. (2)</p> | <p>02 04 04 03 03 02 00 03 02 03 02 02 03</p> | <p>18</p> | <p>33</p> | <p>Student selects the top and supervisor. -Project assessment needs improvement -- only few projects are good. NO industry supported lab -- No evidence of impact analysis Some students have attended 5 day program -- Not upto the mark</p> |
| <p>2.2.4. Initiatives related to industry interaction</p> | <p>15</p> | <p>A. Industry supported laboratories (5) B. Industry involvement in the program design and partial delivery of any regular courses for students (5) C. Impact analysis of industry institute interaction and actions taken thereof (5)</p> | <p>00 03 02</p> | <p>05</p> | | |
| <p>2.2.5. Initiatives related to industry internship/summer training</p> | <p>15</p> | <p>A. Industrial training/tours for students (3) B. Industrial /internship /summer training of more than two weeks and post training Assessment (4) C. Impact analysis of industrial training (4) D. Student feedback on initiative (4)</p> | <p>03 02 02 03</p> | <p>10</p> | | |
| <p>Total of Criterion 2:</p> | | <p>120</p> | <p>Overall Marks for Criterion 2: 81</p> | | | |




Criterion 3: Course Outcomes and Program Outcomes (120)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--------|---|------------|--|---------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 3.1. | Establish the correlation between the courses and the POs & PSOs | 20 | | | | | |
| 3.1.1. | Course Outcomes | 5 | Evidence of COs being defined for every course (5) | | 05 | | Co-formapping needs to be done |
| 3.1.2. | CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices) | 5 | Explanation of table to be ascertained (5) | | 03 | | Justification is missing |
| 3.1.3. | Program level Course-PO/PSOs matrix of ALL courses including first year courses | 10 | Explanation of tables to be ascertained (10) | | 06 | | |



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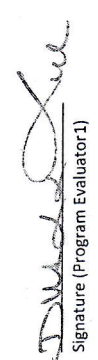


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| | | | | | | |
|------------------------------|--|------------|---|----------|---------------|--|
| 3.2.1. | Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based | 10 | A. List of assessment processes (2) B. The quality /relevance of assessment processes & tools used (8) | 02 08 | Overall 38 | Quality needs to be improved. Targets for coattainment is same for all the 3 years and it is only 50% |
| 3.2.2. | Record the attainment of Course Outcomes of all courses with respect to set attainment levels | 40 | Verify the attainment levels as per the benchmark set for all courses (40) | 28 | | |
| 3.3. | Attainment of Program Outcomes and Program Specific Outcomes | 50 | | | | |
| 3.3.1. | Describe assessment tools and processes used for assessing the attainment of each of the POs & PSOs | 10 | A. List of assessment tools & processes (5) B. The quality/relevance of assessment tools/processes used (5) | 05 05 | Overall 36 | Indirect attainment is inflated. Same target for all the 3 years. |
| 3.3.2. | Provide results of evaluation of each PO & PSO | 40 | A. Verification of documents, results and level of attainment of each PO/PSO (24) B. Overall levels of attainment (16) | 15 11 | | |
| Total of Criterion 3: | | 120 | Overall Marks for Criterion 3: | | 88 | |



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Criterion 4: Students' Performance (150)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--------|---|------------|---|---------------|-------|--|--|
| | | | | Marks | Total | | |
| 4.1. | Enrolment Ratio (20) | 20 | <p>A. >= 90% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (20)</p> <p>B. >= 80% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (18)</p> <p>C. >= 70% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (16)</p> <p>D. >= 60% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (14)</p> <p>E. >= 50% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (12)</p> <p>F. Otherwise '0'.</p> | 0 | 0 | <p>Overall Mark for 4.1</p> <p>Average enrolment ratio is $\frac{38.33 + 41.67 + 60}{3} = 46.67 < 50\%$.</p> | |
| 4.2. | Success Rate in the stipulated period of the program | 40 | | | | | |
| 4.2.1. | Success rate without backlogs in any Semester/year of study Without Backlog means no compartment or failures in any semester/year of study | 25 | <p>SI = (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)</p> <p>Average SI = Mean of success index (SI) for past three batches</p> <p>Success rate without backlogs in any year of study = $25 \times$ Average SI</p> | 04 | 04 | <p>Overall Mark for 4.2</p> <p>Average SI = 0.156</p> <p>Mentor: _____</p> | |
| 4.2.2. | Success rate in stipulated period (actual duration of the program) [Total of with backlog + without backlog] | 15 | <p>SI = (Number of students who graduated from the program in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)</p> <p>Average SI = mean of success index (SI) for past three batches</p> <p>Success rate = $15 \times$ Average SI</p> | 07 | 07 | <p>Overall Mark for 4.2</p> <p>Average SI = 0.473</p> <p>Mentor: _____</p> | |
| 4.3. | Academic Performance in Third Year | 15 | <p>Academic Performance = $1.5 \times$ Average API (Academic Performance Index)</p> <p>API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) \times (successful students/number of students appeared in the examination)</p> <p>Successful students are those who are permitted to proceed to the final year</p> | 10 | 10 | <p>Overall Mark for 4.3</p> <p>Average API = 6.78</p> <p>Mentor: _____</p> | |

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|------|--|----|--|------|------|------------------------------|---|
| 4.4. | Academic Performance in Second Year | 15 | <p>Academic Performance Level = 1.5 * Average API (Academic Performance Index)</p> <p>API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful student sin Second Year/10)) x (successful students/number of students appeared in the examination)</p> | 9.61 | 9.61 | $\frac{9.61}{10} \approx 10$ | <p>Average API = 6.4</p> |
| 4.5. | Placement, Higher studies and Entrepreneurship | 40 | <p>Assessment Points = 40 x average of three years of [(x + y + z)/N] where, x = Number of students placed in companies or Government sector through on/off campus recruitment, y = Number of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National level tests, GRE, GMAT etc.), z = No. of students turned entrepreneur in engineering/technology</p> <p>N = Total number of final year students</p> | 24 | 24 | $\frac{24}{45}$ | <p>PI of Students Placed over 3 years = 0.6</p> |

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| | | | | | | | | |
|------------------------------|---|------------|--|----|-----------|--|--|--|
| 4.6. | Professional Activities | 20 | | | | | | |
| 4.6.1. | Professional societies/chapters and organizing engineering events | 5 | A. Availability & activities of professional societies/chapters (3) | 03 | 05 | | | |
| | | | B. Number, quality of engineering events (organized at institute, Level- Institute/State/National/International) (2) | 02 | | | | |
| 4.6.2. | Publication of technical magazines, newsletters, etc. | 5 | A. Quality & Relevance of the contents and Print Material (3) | 03 | 05 | | | |
| | | | B. Participation of Students from the program (2) | 02 | | | | |
| | | | A. Events within the state (2) | 02 | | | | |
| | | | B. Events outside the state (3) | 00 | 06 | | | |
| 4.6.3. | Participation in inter-institute events by students of the program of study (at other institutions) | 10 | C. Prizes/awards received in such events (5) | 04 | | | | |
| Total of Criterion 4: | | 150 | Overall Marks for Criterion 4: | | 71 | | | |

Overall Mark for 4.6

16



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| Criterion 5: Faculty Information and Contributions (200) | | | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--|-----------------------------|------------|---|---------------|-------|---------------------------------|--|
| S.No. | Sub Criteria | Max. Marks | | Marks | Total | | |
| 5.1. | Student-Faculty Ratio (SFR) | 20 | <p>Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:</p> <p>< = 15 - 20 Marks < = 17 - 18 Marks < = 19 - 16 Marks < = 21 - 14 Marks < = 23 - 12 Marks < = 25 - 10 Marks > 25 - 0 Marks</p> <p>Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:</p> <ol style="list-style-type: none"> 1. Shall have the AICTE prescribed qualifications and experience. 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration. 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit | 18 | 18 | Overall Marks: 18 | Average SFR = 16.36 |
| 5.2. | Faculty Cadre Proportion | 25 | <p>Cadre Proportion Marks =</p> $\left[\frac{AF1}{RF1} + \frac{AF2}{RF2} \times 0.6 + \frac{AF3}{RF3} \times 0.4 \times 17.5 \right]$ <ul style="list-style-type: none"> • If AF1 = AF2 = 0 then zero marks • Maximum marks to be limited if it exceeds 25 (Refer calculation in SAR) | 19 | 19 | Overall Marks for SAR: 19 | Average Faculty Ratio = 19.16 |
| 5.3. | Faculty Qualification | 25 | <p>FQ = 2.5 x [(10X + 4Y)/F] where, X is no. of faculty with Ph.D., Y is no. of faculty with M.Tech, F is no. of faculty required to comply 1:20 Faculty Student ratio (no. of faculty and no. of students required to be calculated as per 5.1)</p> | 15 | 15 | Overall Marks for FQ: 15 | Average FQ = 14.81 |
| 5.4 | Faculty Retention | 25 | <ol style="list-style-type: none"> A. ≥ 90% of required Faculties retained during the period of assessment keeping CAYm2 as base year (25) B. ≥ 75% of required Faculties retained during the period of assessment keeping CAYm2 as base year (20) C. ≥ 60% of required Faculties retained during the period of assessment keeping CAYm2 as base year (15) | 10 | 10 | Overall Marks for Retention: 10 | 50% |

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| | | D. ≥ 50% of required Faculties retained during the period of assessment keeping CAYm2 as base year (10) | | | | | | | |
|------|--|---|--|----------------------|----|------------------|---|--|--|
| | | E. Otherwise (0) | | | | | | | |
| 5.5. | Innovations by the Faculty in Teaching and Learning | 20 | A. The work must be made available on Institute Website (4) B. The work must be available for peer review and critique (4) C. The work must be reproducible and developed further by other scholars (2) D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique (10) | 02 02 01 03 | 08 | Overall mark 5.5 | Some work is available in the Institute website No evidence of clarity | | |
| 5.6 | Faculty as participants in Faculty development /training activities /STTPs | 15 | For each year: Assessment = 3xSum/0.5RF Average assessment over last three years starting from CAYm1 (Marks limited to 15) | 12 | 12 | Overall mark 5.6 | Average = 11.5 | | |

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| | | | | | | | |
|--|----|--|--|----|----|--|--|
| 5.7. Research and Development | 30 | | | | | | |
| 5.7.1. Academic Research | 10 | | | 02 | 02 | | |
| | | | | 00 | 00 | | |
| 5.7.2 Sponsored Research | 5 | | | 00 | 00 | | |
| 5.7.3 Development Activities | 10 | | | 00 | 00 | | |
| 5.7.4. Consultancy (From Industry) | 5 | | | 00 | 00 | | |
| Overall Marks for 5.7 | | | | | | | 02 |
| - Only one SCI indexed journal - No PhD guidance/awards | | | | | | | No sponsored Mention numbers project |
| | | | | | | | No evidence |
| | | | | | | | None Mention numbers |




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| | | | | | | |
|-----------------------|--|----|---|--------------------------------|----|---------------------------|
| 5.8. | Faculty Performance Appraisal and Development System (FPADS) | 30 | A. A well defined performance appraisal and development system instituted for all the assessment years (10) B. Its implementation and effectiveness (20) | 07 | 15 | Overall Marks for 5.8: 15 |
| 5.9. | Visiting/Adjunct/Emeritus Faculty etc. | 10 | Provision of Visiting /Adjunct/Emeritus faculty etc.(1) Minimum 50 hours per year interaction per year to obtain three marks : 3 x 3 = 9 | 01 | 01 | Overall Marks for 5.9: 01 |
| Total of Criterion 5: | | | 200 | Overall Marks for Criterion 5: | | 100 |


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Criterion 6: Facilities and Technical Support (80)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------------------|--|------------|--|------------------------|-------|----------------------------|---|
| | | | | Marks | Total | | |
| 6.1. | Adequate and well equipped laboratories, and technical manpower | 30 | A. Adequate well-equipped laboratories to run all the program-specific curriculum (20) | 18 | 26 | Overall Marks for 6.1: 026 | All Curriculum labs are available |
| | | | B. Availability of adequate technical supporting staff (5) | 04 | | | |
| | | | C. Availability of qualified technical supporting staff (5) | 04 | | | |
| 6.2. | Additional Facilities created for improving the quality of learning experience in Laboratories | 25 | A. Availability and relevance of additional facilities(10) | 04 | 08 | Overall Marks for 6.2: 008 | Some ADDING BOARDS are available for students constant projects |
| | | | B. Facilities utilization and effectiveness (10) | 04 | | | |
| | | | C. Relevance to POs and PSOs (5) | 00 | | | |
| 6.3. | Laboratories: Maintenance and overall ambience | 10 | Maintenance and overall ambience (10) | 08 | 08 | Overall Marks for 6.3: 008 | |
| 6.4. | Project laboratory | 5 | Facilities & Utilization (5) | 02 | 02 | Overall Marks for 6.4: 002 | Facilities in Project lab to not much |
| 6.5. | Safety measures in laboratories | 10 | Safety measures in laboratories (10) | 08 | 08 | Overall Marks for 6.5: 008 | |
| Total of Criterion 6: | | | | Marks for Criterion 6: | | 52 | |

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Part B-Program Assessment Worksheet Institute Level Criteria to be Assessed by Chairman

Name of the Institution: Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin – 685531.

Name of the Institution: Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin – 685531.

Name of the Program: UG-Electrical & Electronics Engineering

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|---|---|------------|--|---------------|-------|---------------|--|
| | | | | Marks | Total | | |
| Criterion 8: First Year Academics (50) | | | | | | | |
| 8.1. | First Year Student- Faculty Ratio (FYSFR) | 5 | For each year of assessment = $(5 \times 20) / \text{FYSFR}$ (Limited to Max. 5) Average of previous three academic years including Current Academic Year. *Note: If FYSFR is greater than 25, then assessment equal to zero. | 0 | 0 | 0 | Avg. FYSFR is 25.75 |
| 8.2. | Qualification of Faculty Teaching First Year Common Courses | 5 | A. Assessment of faculty qualification $(5x + 3y) / \text{RF}$ B. Average of Assessment of last three years including current academic year (Refer 8.2. for x, y and RF) | 3 | 3 | 3 | 1 PhD in each year |
| 8.3. | First Year Academic Performance | 10 | Academic Performance = $(\text{Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale})$ or $(\text{Mean of the percentage of marks in First Year of all successful students}/10) \times (\text{successful students}/\text{number of students appeared in the examination})$ Successful students are those who are permitted to proceed to the Second year | 5 | 5 | 5 | ECE: 4.83 (Avg) |
| 8.4. | Attainment of Course Outcomes of first year courses | 10 | | 1 | 3 | 6 | Only direct assessment methods are used |
| 8.4.1. | Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is based | 5 | A. List of assessment processes (1) B. The relevance of assessment tools used (4) | 2 | | | |
| 8.4.2. | Record the attainment of Course Outcomes of all first year courses | 5 | Verify the records as per the benchmark set for the courses (5) | 3 | 3 | | |
| 8.5. | Attainment of Program Outcomes of all first year courses | 20 | | 3 | 12 | 12 | Only direct assessment methods are used |
| 8.5.1. | Indicate results of evaluation of each relevant PO/PSO | 15 | A. Process of computing POs/PSOs attainment level from the COs of related first year courses (5) B. Verification of documents validating the above process (10) | 7 | | | Action taken is not seen much |
| 8.5.2. | Actions taken based on the results of evaluation of relevant POs /PSOs | 5 | Appropriate actions taken (5) | 2 | | | |
| Total of Criterion 8: | | | | | | 26 | |

Criterion 9: Student Support Systems (50)


| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|------------------------------|---|------------|---|---------------------------------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 9.1. | Mentoring system to help at individual level | 5 | Details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system (5) | 4 | 4 | 4 | |
| 9.2. | Feedback analysis and reward /corrective measures taken, if any | 10 | A. Methodology being followed for analysis of feedback and its effectiveness (5) B. Record of corrective measures taken (5) | 4 3 | 7 | 7 | Not seen much |
| 9.3. | Feedback on facilities | 5 | Feedback collection, analysis and corrective action (5) | 3 | 3 | 3 | Analysis and action taken is not seen much |
| 9.4. | Self-Learning | 5 | A. Scope for self-learning (2) B. Self-Learning facilities, materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization (3) | 2 3 | 5 | 5 | |
| 9.5. | Career Guidance, Training, Placement | 10 | A. Availability of career guidance facilities (2) B. Counseling for higher studies (GATE/GRE, GMAT, etc.) (2) C. Pre-placement training (3) D. Placement process and support (3) | 2 2 3 3 | 10 | 10 | |
| 9.6. | Entrepreneurship Cell | 5 | A. Entrepreneurship initiatives (1) B. Data on students benefitted (4) | 1 2 | 3 | 3 | Limited |
| 9.7. | Co-curricular and Extra-curricular Activities | 10 | A. Availability of sports and cultural facilities (3) B. NCC, NSS and other clubs (3) C. Annual students activities (4) | 3 2 3 | 8 | 8 | NSS and other units but no NCC unit |
| Total of Criterion 9: | | | | Overall Marks for Criterion 9: | | 40 | |

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| Criterion 10: Governance, Institutional Support and Financial Resources (120) | | | | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|---|---|------------|---|---------------|---------------|--|
| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | |
| | Organization, Governance and Transparency | 40 | | Marks | Total | |
| 10.1.1. | State the Vision and Mission of the Institute | 5 | A. Availability of the Vision & Mission statements of the Institute (2) B. Appropriateness/Relevance of the Statements (3) | 2 | 5 | |
| 10.1.2. | Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies | 10 | A. Governing Body Composition, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; participation details of external members and attendance therein (4) B. The published service rules, policies and procedures with year of publication (3) C. Minutes of the meetings and action-taken reports (3) | 4 | 10 | |
| 10.1.3. | Decentralisation in working and grievance redressal mechanism | 10 | A. List the names of the faculty members who have been delegated powers for taking administrative decisions (1) B. Specify the mechanism and composition of grievance redressal cell (2) C. Action taken report as per 'B' above (7) | 1 | 8 | |
| 10.1.4. | Delegation of financial powers | 10 | A. Financial powers delegated to the Principal, Heads of Departments and relevant in-charges (3) B. Demonstrate the utilization of financial powers for each of the assessment years (7) | 2 | 5 | |
| 10.1.5. | Transparency and availability of correct/unambiguous information in public domain | 5 | A. Information on the policies, rules, processes is to be made available on web site (2) B. Dissemination of the information about student, faculty and staff (3) | 3 | 5 | Limited financial powers usage is observed |
| 10.2. | Budget Allocation, Utilization, and Public Accounting at Institute level | 30 | Expenditure per student: 1.079/- lacs per year Fee per student: Rs. 0.909/- per year | 5 | 10 | |
| 10.2.1. | Adequacy of Budget allocation | 10 | A. Quantum of budget allocation for three years (5) B. Justification of budget allocated for three years (5) | 5 | 14 | 29 |
| 10.2.2. | Utilization of allocated funds | 15 | Budget utilization for three years (15) | 14 | 14 | |
| 10.2.3. | Availability of the audited statements on the institute's website | 5 | Availability of Audited statements on website (5) | 5 | 5 | |

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| 10.3. | Program Specific Budget Allocation, Utilization | 30 | To be evaluated in consultation with the Program Experts | | | | 12 |
|-------------------------------|---|------------|--|---|---|-----------|----|
| | | | A. Quantum of budget allocation for three years (5) | 4 | 8 | | |
| 10.3.1. | Adequacy of budget allocation | 10 | B. Justification of budget allocated for three years (5) | 4 | | | |
| 10.3.2. | Utilization of allocated funds | 20 | Budget utilization for three years (20) | 4 | 4 | | |
| 10.4. | Library and Internet | 20 | | | | | |
| 10.4.1. | Quality of learning resources (hard/soft) | 10 | A. Availability of relevant learning resources including e-resources and Digital Library (7) | 6 | 9 | | |
| | | | B. Accessibility to students (3) | 3 | | | |
| | | | A. Available bandwidth (4) | 3 | 9 | | |
| | | | B. Wi Fi availability (2) | 2 | | | |
| 10.4.2. | Internet | 10 | C. Internet access in labs, classrooms, library and offices of all Departments (2) | 2 | | | |
| | | | D. Security mechanism (2) | 2 | | | |
| Total of Criterion 10: | | 120 | Overall Marks for Criterion 10: | | | 95 | |


 (Prof. Dharminder Kumar)
 Chairman

PART A

Evaluator's Visit Report

Undergraduate Engineering Program

Tier-II

Name of the Institution

Mar Baselios Christian College of Engineering & Technology, Poozha
Kerala

Name of the Program

UG- Civil Engineering

Visit Dates

17th to 19th June 2022

NATIONAL BOARD OF ACCREDITATION

NBCC Place, East Tower, 4th Floor, Bhisham Pitamah Marg,
Pragati Vihar, New Delhi 110003

Tel: +91 112430620-22; 01124360654; www.nbaind.org

Program Evaluator Summary

Overview

The Expert team of National Board of Accreditation (NBA) conducted a three day accreditation visit from 17th to 19th June 2022, Mar Baselios Christian College of Eng & Technology to evaluate UG Engineering program UG - CIVIL ENGINEERING

Pre visit meeting of the expert tea was held on at 17th June 2022, 7.30 AM at Pepper Vine Hotel, Thiruvananthapuram to exchange the respective findings with the evaluation team members, based on review of Self-Assessment Report (SAR) and the pre-visit evaluation reports.

During the visit, the visiting team met with Head of the Institution/Dean Dr Jayaraj Kuchipilla. The briefing on the institution was given by Principal and on the program was given by the Dr. S. Kamalakannan HoD. The respective program evaluators also visited the various facilities of the program. Apart from comprehensive review of documental evidences pertaining to various accreditation criteria, the visiting team also held meeting and discussions with the following stakeholders (kindly tick).

Faculty

Alumni

Employers

Parents

Staff members

Students

The Program Evaluation Team found that (general findings about the program to be mentioned)

The Program was started in 2001 and applies for
accreditation for the first time. The College is located
in remote/rural area & hilly terrain in Kerala. Most of
the students are from the surrounding areas.

SAR
18.6.22
(RADHAKRISHNAN)

P. J. L.
18/6/22
(S-SRINIVASAN)

Program Details

| | | | | | |
|---|--|---------------------------------|---|------------------|-------|
| Name of the Program: <u>UG - CIVIL Engineering</u> | | | | | |
| Year of Commencement | 2001 (Institution), 2010 (Program) | | | | |
| Student | Year | Sanctioned Intake | Actual Admitted (without Lateral Entry) | | |
| | CAY (20 <u>20</u> - 20 <u>11</u>) | 60 | 34 | | |
| | CAY m1 (20 <u>19</u> - 20 <u>20</u>) | 60 | 21 | | |
| | CAY m2 (20 <u>18</u> - 20 <u>19</u>) | 60 | 46 | | |
| | Total Students in the Programme 1 st to Final Year | 137 | | | |
| | Average of CAY, CAYm1 and CAYm2 | $\frac{137+137+165}{3} = 146.3$ | | | |
| Faculty (Attach a Copy of faculty list compared with Time Table) | Regular | | CAY | CAYm1 | CAYm2 |
| | | Professor | — | — | — |
| | | Associate professor | 1 | 2 | 1 |
| | Assistant professor | 8 | 8 | 8 | |
| | Contractual | Professor | 0 | 0 | 0 |
| | | Associate professor | 0 | 0 | 0 |
| | | Assistant professor | 0 | 0 | 0 |
| | No. of PhD. available in the dept. | | 1 | 2 | 1 |
| | Student - Faculty ratio (average of CAY, CAYm1 and CAYm2 (Refer criteria-5.1)) | 21.70. | | | |
| | Previous accreditation(if any) | First accreditation | No. of years accredited for | First time apply | |
| With effect from | | | | | |
| Previous accreditation | | No. of years accredited for | NA | | |
| | | With effect from | NA | | |

CAY: Current Academic Year
 CAYm1: Current Academic Year minus 1= Current Assessment year
 CAYm2: Current Academic Year minus 2= Current Assessment year minus 1

Note: Consideration of Contractual Faculty means:

- All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:
 1. Shall have the AICTE prescribed qualifications and experience.
 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

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Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title UG - Civil Engineering

Strengths:

1. Beautiful & well maintained Campus having all the facilities
2. Well equipped laboratories with good ambience
3. Hardworking faculty.
4. Good number of Students/Professional activities
5.

Weakness/Areas of improvement:

1. Students enrolment ratio is a concern
2. Retention of faculty needs improvement.
3. Cadre Proportion is a concern without any Professor
4. No licenses Software
5. Less understanding of OBE

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Deficiencies:

1. Very less R&D, Consultancy.
2. Poor success rate of students
- 3.
- 4.
- 5.

Other Observations, if any:


- 1.
- 2.
- 3.
- 4.
- 5.

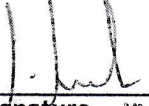
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Department/Programme Specific Criteria:

| S.no. | Criteria | Max. Marks | Marks Awarded | Remarks |
|-------|--|------------|---------------|---------|
| 1. | Vision, Mission and Program Educational Objectives | 60 | 40 | |
| 2. | Program Curriculum and Teaching-Learning Processes | 120 | 69 | |
| 3. | Course Outcomes and Program Outcomes | 120 | 90 | |
| 4. | Students' Performance | 150 | 76 | |
| 5. | Faculty Information and Contributions | 200 | 88 | |
| 6. | Facilities and Technical Support | 80 | 59 | |
| 7. | Continuous Improvement | 50 | 27 | |
| TOTAL | | 780 | 449 | |


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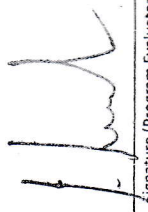
Part B-Program Assessment Worksheet

Program Level Criteria - To be Assessed by Evaluator

Name of the Institution Max Basilio's Christian College & Engineering and Technology, Kerala
 Name of the Program UG - CIVIL ENGINEERING

| Criterion 1: Vision, Mission and Program Educational Objectives (60) | | Max. Marks | Evaluation Guidelines (Marks) | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--|---|------------|--|---------------------------------------|-------|-----------------------|--|
| S.No. | Sub Criteria | | | Marks | Total | | |
| 1.1. | State the Vision and Mission of the Department and Institute | 5 | A. Availability of statements of the Departments (1) B. Appropriateness/Relevance of the Statements (2) C. Consistency of the Department statements with the Institute statements (2) | 1 2 2 | 5 | Overall Marks for 1.1 | satisfactory |
| 1.2. | State the Program Educational Objectives (PEOs) | 5 | Program Educational Objectives (3 to 5) (5) Appropriateness | 4 | 4 | Overall Marks for 1.2 | Lengthy & reasonable |
| 1.3. | Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders | 10 | A. Adequacy in respect of publication & dissemination (2) B. Process of dissemination among stakeholders (2) C. Extent of awareness of Vision, Mission & PEOs among the stakeholder. (6) | 2 1 4 | 7 | Overall Marks for 1.3 | All the stake holders are not aware |
| 1.4. | State the process for defining the Vision and Mission of the Department, and PEOs of the program | 25 | A. Description of process for defining the Vision, Mission of the Department (10) B. Description of process for defining the PEOs of the program (15) | 7 7 | 14 | Overall Marks for 1.4 | Policy is satisfactory PEOs - security demand Documentary evidence missing |
| 1.5. | Establish consistency of PEOs with Mission of the Department | 15 | A. Preparation of a matrix of PEOs and elements of Mission statement (5) B. Consistency/justification of co-relation parameters of the above matrix (10) | 4 6 | 10 | Overall Marks for 1.5 | not understood the correlation |
| Total of Criterion 1: | | | | Overall Marks for Criterion 1: | | 40 | |


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Criterion 2: Program Curriculum and Teaching – Learning Processes (120)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--------|--|------------|--|---------------------------------|-------|-----------------------------|--|
| | | | | Marks | Total | | |
| 2.1. | Program Curriculum | 20 | | | | | |
| | State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes (POs) & Program Specific Outcomes (PSOs), mention the identified curricular gaps, if any | 10 | A. Process used to identify extent of compliance of University curriculum for attaining POs & PSOs (6) B. List the curricular gaps for the attainment of defined POs & PSOs (4) | 5 3 | 8 | Overall Marks for 2.1 13 | I identified More gaps need to be identified by students faculty No steps taken Expert lecturers/industry Organised |
| | 2.1.1. | 10 | A. Steps taken to get identified gaps included in the curriculum. (letter to university/BOS) (2) B. Delivery details of content beyond syllabus (5) C. Mapping of content beyond syllabus with the POs & PSOs (3) | 0 3 2 | 5 | | |
| 2.2. | Teaching-Learning Processes | 100 | | | | | |
| | Describe the Process followed to improve/quality of Teaching Learning | 25 | A. Adherence to Academic Calendar (3) B. Use of various instructional methods and pedagogical initiatives (3) C. Methodologies to support weak students and encourage bright students (4) D. Quality of classroom teaching (Observation in a Class) (3) E. Conduct of experiments (Observation in Lab) (3) F. Continuous Assessment in the laboratory (3) G. Student feedback on teaching learning process and actions taken (6) | 3 2 3 2 2 2 4 | 18 | Overall Marks for 2.2 28 | Uni/Ver'sity Calendar followed Available Remedial classes conducted Bright students are encouraged for higher learning Feedback is available action-taken is absent COS are mentioned in ppr since 2021 only. |
| 2.2.1 | | | | | | | |
| | Quality of internal semester Question papers, assignments and Evaluation | 20 | A. Process for internal semester question paper setting, evaluation and effective process implementation (5) B. Process to ensure questions from outcomes/learning levels perspective (5) C. Evidence of COs coverage in class test / mid-term tests (5) D. Quality of Assignment and its relevance to COs (5) | 3 3 2 2 | 10 | | |
| 2.2.2. | | | | | | | |

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|---|-----|--|----------------------------|----|---|
| 2.2.3. Quality of student projects | 25 | A. Identification of projects and allocation methodology to Faculty (3) B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs(5) C. Process for monitoring and evaluation (5) D. Process to assess individual and team performance(5) E. Quality of completed projects/working prototypes (5) F. Evidences of papers published /Awards received by projects etc. (2) | 2 3 4 3 3 1 | 16 | Projects are not mapped with POs & PSOs Evaluation is Satisfactory Some Papers are Published No industry supported lab Industry has supported few Projects All the students are encouraged to undertake an industrial Feedback letter |
| 2.2.4. Initiatives related to industry interaction | 15 | A. Industry supported laboratories (5) B. Industry involvement in the program design and partial delivery of any regular courses for students (5) C. Impact analysis of industry institute interaction and actions taken thereof (5) | 0 1 1 | 2 | 23 |
| 2.2.5. Initiatives related to industry internship/summer training | 15 | A. Industrial training/tours for students (3) B. Industrial /internship /summer training of more than two weeks and post training Assessment (4) C. Impact analysis of industrial training (4) D. Student feedback on initiative (4) | 2 3 2 3 | 10 | |
| Total of Criterion 2: | 120 | Overall Marks for Criterion 2: | 69 | | |

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Criterion 3: Course Outcomes and Program Outcomes (120)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------------------|--|------------|--|--------------------------------|-------|-----------------------------|--|
| | | | | Marks | Total | | |
| 3.1. | Establish the correlation between the courses and the POs & PSOs | 20 | | | | | |
| 3.1.1. | Course Outcomes | 5 | Evidence of COs being defined for every course (5) | 5 | 5 | Overall Marks for 3.1 16 | Available |
| 3.1.2. | CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices) | 5 | Explanation of table to be ascertained (5) | 3 | 3 | | More assertions & references |
| 3.1.3. | Program level Course-PO/PSOs matrix of ALL courses including first year courses | 10 | Explanation of tables to be ascertained (10) | 8 | 9 | | Satisfactory |
| 3.2. | Attainment of Course Outcomes | 50 | | | | Overall Marks for 3.2 38 | Available |
| 3.2.1. | Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based | 10 | A. List of assessment processes (2) | 2 | 8 | | Tools exist & used |
| 3.2.2. | Record the attainment of Course Outcomes of all courses with respect to set attainment levels | 40 | B. The quality/relevance of assessment processes & tools used (8) Verify the attainment levels as per the benchmark set for all courses (40) | 6 | 30 | | Bench mark allowed for the majority of POs |
| 3.3. | Attainment of Program Outcomes and Program Specific Outcomes | 50 | | | | Overall Marks for 3.3 36 | Available |
| 3.3.1. | Describe assessment tools and processes used for assessing the attainment of each of the POs & PSOs | 10 | A. List of assessment tools & processes (5) | 3 | 6 | | Usage is less |
| 3.3.2. | Provide results of evaluation of each PO & PSO | 40 | B. The quality/relevance of assessment tools/processes used (5) A. Verification of documents, results and level of attainment of each PO/PSO (24) B. Overall levels of attainment (16) | 3 | 18 | | Satisfactory |
| Total of Criterion 3: | | | | Overall Marks for Criterion 3: | | 90 | |

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| Criterion 4: Students' Performance (150) | | | | Observations of Evaluators (Provide Justifications/ Reasons) | | |
|--|--|------------|---|--|---------------|--|
| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Overall Marks | Overall Marks | |
| | | | Mark's Awarded | | | |
| | | | Marks | Total | | |
| 4.1. | Enrolment Ratio (20) | 20 | <p>A. \geq 90% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (20)</p> <p>B. \geq 80% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (18)</p> <p>C. \geq 70% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (16)</p> <p>D. \geq 60% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (14)</p> <p>E. \geq 50% students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year (12)</p> <p>F. Otherwise '0'.</p> | 12 | 12 | <p>2020-21 - $\frac{34}{60}$</p> <p>2019-20 - $\frac{21}{60}$</p> <p>2018-19 - $\frac{46}{60}$</p> <p>= 56.11</p> |
| 4.2. | Success Rate in the stipulated period of the program | 40 | <p>SI = (Number of students who graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)</p> <p>Average SI = Mean of success index (SI) for past three batches</p> <p>Success rate without backlogs in any year of study = $25 \times$ Average SI</p> | 4.9 | 5 | <p>2020-21 - $\frac{14}{40} = 0.35$</p> <p>2019-20 - $\frac{8}{43} = 0.186$</p> <p>2018-19 - $\frac{3}{51} = 0.05$</p> <p>Mention Numbers</p> <p>0.195 x 25 = 4.9</p> |
| 4.2.1. | Success rate without backlogs in any Semester/year of study | 25 | | | | <p>2020-21 = $\frac{23}{40} = 0.575$</p> <p>2019-20 - $\frac{14}{43} = 0.325$</p> <p>2018-19 - $\frac{15}{51} = 0.295$</p> <p>Mention Numbers</p> <p>Arc = $0.375 \times 15 = 5.6$</p> |
| 4.2.2. | Without Backlog means no compartment or failures in any semester/year of study | 15 | | | | |
| 4.3. | Academic Performance in Third Year | 15 | <p>SI = (Number of students who graduated from the program in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)</p> <p>Average SI = mean of success index (SI) for past three batches</p> <p>Success rate = $15 \times$ Average SI</p> <p>Academic Performance = $1.5 \times$ Average API (Academic Performance Index)</p> <p>API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) x (successful students/number of students appeared in the examination)</p> <p>Successful students are those who are permitted to proceed to the final year</p> | 8.99 | 9 | <p>7-20 - 2020-21</p> <p>5-69 - 2019-20</p> <p>5-62 - 2018-19</p> <p>Mention Numbers</p> <p>Arc = $5.99 \times 15 = 8.99$</p> |

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| | | | | | | | |
|-----------------------|---|-----|---|--------------------------------|----|-----------------------------|---|
| 4.4. | Academic Performance in Second Year | 15 | Academic Performance Level = 1.5 * Average API (Academic Performance Index) API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful student in Second Year/10)) x (successful students/number of students appeared in the examination) | 8-8 | 9 | Overall Mark for 4.4 9 | 2020-21 - 6.61 2019-20 - 6.27 2018-19 - 4.53 Mention Numbers Ave = 5.84 x 15 = 8.8 |
| 4.5. | Placement, Higher studies and Entrepreneurship | 40 | Assessment Points = 40 x average of three years of [(x + y + z)/N] where, x = Number of students placed in companies or Government sector through on/off campus recruitment, y = Number of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National level tests, GRE, GMAT etc.), z = No. of students turned entrepreneur in engineering/technology N = Total number of final year students | 23.4 | 23 | Overall Marks for 4.5 23 | 2019-20 - 19/33 = 57.6 2018-19 - 33/49 = 63.3 Mention Numbers along with the calculation 2017-18 - 31/49 = 21% Ave = 58.5 58.5 x 40 = 23.4 |
| 4.6. | Professional Activities | 20 | | | | | |
| 4.6.1. | Professional societies/chapters and organizing engineering events | 5 | A. Availability & activities of professional societies/chapters (3) B. Number, quality of engineering events (organized at institute, Level- Institute/State/National/International) (2) | 3 | 4 | | 3 Professional bodies exist No. national & international level events |
| 4.6.2. | Publication of technical magazines, newsletters, etc. | 5 | A. Quality & Relevance of the contents and Print Material (3) B. Participation of Students from the program (2) | 1 | 3 | | Frequency is less Participation is > 90% |
| 4.6.3. | Participation in inter-institute events by students of the program of study (at other institutions) | 10 | A. Events within the state (2) B. Events outside the state (3) C. Prizes/awards received in such events (5) | 2 | 5 | | Less number of outside state events awards are less |
| Total of Criterion 4: | | 150 | | Overall Marks for Criterion 4: | | 76 | |

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Criterion 5: Faculty Information and Contributions (200)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-------|-----------------------------|------------|--|---------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 5.1. | Student-Faculty Ratio (SFR) | 20 | <p>Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:</p> <p><= 15 - 20 Marks <= 17 - 18 Marks <= 19 - 16 Marks <= 21 - 14 Marks <= 23 - 12 Marks <= 25 - 10 Marks > 25 - 0 Marks</p> <p>Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:</p> <ol style="list-style-type: none"> 1. Shall have the AICTE prescribed qualifications and experience. 2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration. 3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit | 13 | 13 | 13 | <p>2020-21 - $\frac{181}{9} = 20.11$</p> <p>2019-20 - $\frac{182}{9} = 20.22$</p> <p>2018-19 - $\frac{183}{9} = 20.33$</p> <p>Arc: 20.7</p> |
| 5.2. | Faculty Cadre Proportion | 25 | <p>Cadre Proportion Marks =</p> $\left[\frac{AF1}{RF1} \right] + \left[\frac{AE2}{RF2} \times 0.6 \right] + \left[\frac{AE3}{RF3} \times 0.4 \right] \times 12.5$ <ul style="list-style-type: none"> • If AF1 = AF2 = 0 then zero marks • Maximum marks to be limited if it exceeds 25 (Refer calculation in SAR) | 11.33 | 12 | 12 | <p>2020-21 - 10.41</p> <p>2019-20 - 13.33</p> <p>2018-19 - 10.41</p> <p>Mention numbers</p> <p>Arc: 11.38</p> |
| 5.3. | Faculty Qualification | 25 | <p>$FQ = 2.5 \times [(-0X + 4Y)/F]$ where, X is no. of faculty with Ph.D., Y is no. of faculty with M.Tech, F is no. of faculty required to comply 1:20 Faculty Student ratio (no. of faculty and no. of students required to be calculated as per 5.1)</p> | 12.22 | 12 | 12 | <p>2020-21 - 11.6</p> <p>2019-20 - 13.33</p> <p>2018-19 - 11.67</p> <p>Mention numbers</p> <p>Arc: 12.22</p> |
| 5.4 | Faculty Retention | 25 | <p>A. ≥ 90% of required Faculties retained during the period of assessment keeping CAYm2 as base year (25) B. ≥ 75% of required Faculties retained during the period of assessment keeping CAYm2 as base year (20) C. ≥ 60% of required Faculties retained during the period of assessment keeping CAYm2 as base year (15)7</p> | 15 | 15 | 15 | <p>$\left(\frac{5}{9} + \frac{7}{9} \right) \times \frac{100}{2} = 66.67$</p> |

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|-----------------------|--|-----|--|--------------------------------|----|-----------------------|---|
| 5.5. | Innovations by the Faculty in Teaching and Learning | 20 | A. The work must be made available on Institute Website (4) B. The work must be available for peer review and critique (4) C. The work must be reproducible and developed further by other scholars (2) D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique (10) For each year: Assessment = 3xSum/0.5RF Average assessment over last three years starting from CAYm1 (Marks limited to 15) | 0 | 0 | Overall Marks for 5.5 | Not available |
| 5.6 | Faculty as participants in Faculty development /training activities /STTPs | 15 | | 12 | 12 | Overall Marks for 5.6 | (8.56 + 10.6 + 9.84) / 3 Mention numbers |
| 5.7. | Research and Development | 30 | | | | | |
| 5.7.1. | Academic Research | 10 | A. Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc. (6) B. PhD guided /PhD awarded during the assessment period while working in the institute (4) C. Funded research from outside; Cumulative CAYm1, CAYm2 and CAYm3: Amount > 20 Lakh - 5 Marks Amount >= 16 Lakh and <= 20 Lakh - 4 Marks Amount >= 12 Lakh and < 16 Lakh - 3 Marks Amount >= 8 Lakh and < 12 Lakh - 2 Marks Amount >= 4 Lakh and < 8 Lakh - 1 Mark Amount < 4 Lakh - 0 Mark D. Product Development E. Research laboratories F. Instructional materials G. Working models/charts/monograms etc. | 4 | 04 | | Average Publications No PhD guidance |
| 5.7.2 | Sponsored Research | 5 | | 0 | 0 | Overall Marks for 5.7 | ₹ 45,000/- Mention numbers |
| 5.7.3 | Development Activities | 10 | | 02 | 02 | | Models developed |
| 5.7.4. | Consultancy (From Industry) | 5 | Consultancy; Cumulative CAYm1, CAYm2 and CAYm3: Amount > 10 Lakh - 5 Marks Amount >= 8 Lakh and <= 10 Lakh - 4 Marks Amount >= 6 Lakh and < 8 Lakh - 3 Marks Amount >= 4 Lakh and < 6 Lakh - 2 Marks Amount >= 2 Lakh and < 4 Lakh - 1 Mark Amount < 2 Lakh - 0 Mark | 0 | 0 | | ₹ 1.23 Lakhs Mention numbers |
| 5.8. | Faculty Performance Appraisal and Development System (FPADS) | 30 | A. A well defined performance appraisal and development system instituted for all the assessment years (10) B. Its implementation and effectiveness (20) | 7 | 17 | Overall Marks for 5.8 | Existing Needs improvement |
| 5.9. | Visiting /Adjunct/Emeritus Faculty etc. | 10 | Provision of Visiting /Adjunct/Emeritus faculty etc.(1) Minimum 50 hours per year interaction per year to obtain three marks : 3 x 3 = 9 | 1 | 1 | Overall Marks for 5.9 | Available but work load < Salary |
| Total of Criterion 5: | | 200 | | Overall Marks for Criterion 5: | | 88 | |

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Criterion 6: Facilities and Technical Support (80)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------------------|--|------------|---|---------------|-------|-----------------------|---|
| | | | | Marks | Total | | |
| 6.1. | Adequate and well equipped laboratories, and technical manpower | 30 | A. Adequate well-equipped laboratories to run all the program-specific curriculum (20) B. Availability of adequate technical supporting staff (5) C. Availability of qualified technical supporting staff (5) | 16 | 23 | Overall Marks for 6.1 | well equipped labs as per curriculum & beyond less number of technical staff |
| 6.2. | Additional Facilities created for improving the quality of learning experience in Laboratories | 25 | A. Availability and relevance of additional facilities(10) B. Facilities utilization and effectiveness (10) C. Relevance to POs and PSOs (5) | 7 | 17 | Overall Marks for 6.2 | Additional equipment available in C.T & C.Lab well utilized for project |
| 6.3. | Laboratories: Maintenance and overall ambience | 10 | Maintenance and overall ambience (10) | 9 | 9 | Overall Marks for 6.3 | Excellent ambience & well maintained |
| 6.4. | Project laboratory | 5 | Facilities & Utilization (5) | 3 | 3 | Overall Marks for 6.4 | Other labs utilized for project work. No. of students lab |
| 6.5. | Safety measures in laboratories | 10 | Safety measures in laboratories (10) | 7 | 7 | Overall Marks for 6.5 | Satisfactory |
| Total of Criterion 6: | | | | 80 | | 59 | |

Marks for Criterion 6:

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Criterion 7: Continuous Improvement (50)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------------------|--|------------|---|---------------|-------|----------------------|---|
| | | | | Marks | Total | | |
| 7.1. | Actions taken based on the results of evaluation of each of the POs and PSOs | 20 | A. Documentation of POs and PSOs attainment levels (5) B. Identification of gaps/shortfalls (5) C. Plan of action to bridge the gap and its implementation (10) | 3 3 5 | 11 | Overall Mark for 7.1 | Fixed low target level more gaps need to be identified Action taken needs improvement |
| 7.2. | Academic Audit and actions taken during the period of Assessment | 10 | Assessment shall be based on conduct and actions taken in relation to continuous improvement (10) | 7 | 7 | Overall Mark for 7.2 | Internal audit exists External audit is missing due to Covid. |
| 7.3. | Improvement in Placement, Higher Studies and Entrepreneurship | 10 | A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5) B. Improvement in Higher Studies admissions (3) C. Improvement in number of Entrepreneurs (2) | 3 1 0 | 4 | Overall Mark for 7.3 | Higher standard of Entrepreneurial needs improvement |
| 7.4. | Improvement in the quality of students admitted to the program | 10 | Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrance tests, percentage Physics, Chemistry and Mathematics marks in 12th Standard and percentage marks of the lateral entry students | 5 | 5 | Overall Mark for 7.4 | Marginal |
| Total of Criterion 7: | | | | 50 | | 27 | Marks for Criterion 7: |

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Part B-Program Assessment Worksheet Institute Level Criteria to be Assessed by Chairman

Name of the Institution: Mar Baselios Christian College of Engineering and Technology, Pallikkunnu P O, Kuttikkanam, Peermade, Idukki Dist, Kerala, Pin – 685531.

Name of the Program: UG- Civil Engineering

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|--|---|------------|--|--------------------------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 8.1. | First Year Student- Faculty Ratio (FYSFR) | 5 | For each year of assessment = $(5 \times 20) / \text{FYSFR}$ (Limited to Max. 5) Average of previous three academic years including Current Academic Year. *Note: If FYSFR is greater than 25, then assessment equal to zero. | 0 | 0 | 0 | Avg. FYSFR is 25.75 |
| 8.2. | Qualification of Faculty Teaching First Year Common Courses | 5 | A. Assessment of faculty qualification $(5x + 3y) / \text{RF}$ B. Average of Assessment of last three years including current academic year (Refer 8.2. for x, y and RF) | 3 | 3 | 3 | 1 PhD in each year |
| 8.3. | First Year Academic Performance | 10 | Academic Performance = $(\text{Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale})$ or $(\text{Mean of the percentage of marks in First Year of all successful students} / 10) \times (\text{successful students} / \text{number of students appeared in the examination})$ Successful students are those who are permitted to proceed to the Second year | 4 | 4 | 4 | ME: 3.70 (Avg.) |
| 8.4. | Attainment of Course Outcomes of first year courses | 10 | | 1 | 3 | 6 | Only direct assessment methods are used |
| 8.4.1. | Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is based | 5 | A. List of assessment processes (1) B. The relevance of assessment tools used (4) | 2 | | | |
| 8.4.2. | Record the attainment of Course Outcomes of all first year courses | 5 | Verify the records as per the benchmark set for the courses (5) | 3 | 3 | | |
| 8.5. | Attainment of Program Outcomes of all first year courses | 20 | | 3 | 12 | 12 | Only direct assessment methods are used |
| 8.5.1. | Indicate results of evaluation of each relevant PO/PSO | 15 | A. Process of computing POs/PSOs attainment level from the COs of related first year courses (5) B. Verification of documents validating the above process (10) | 7 | | | Action taken is not seen much |
| 8.5.2. | Actions taken based on the results of evaluation of relevant POs /PSOs | 5 | Appropriate actions taken (5) | 2 | | | |
| Criterion 8: First Year Academics (50) | | | | Overall Marks for Criterion 8: | | 25 | |

Criterion 9: Student Support Systems (50)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------------------|---|------------|--|--------------------------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 9.1. | Mentoring system to help at individual level | 5 | Details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system (5) | 4 | 4 | 4 | |
| 9.2. | Feedback analysis and reward /corrective measures taken, if any | 10 | A. Methodology being followed for analysis of feedback and its effectiveness (5) | 4 | 7 | 7 | Not seen much |
| | | | B. Record of corrective measures taken (5) | 3 | | | |
| 9.3. | Feedback on facilities | 5 | Feedback collection, analysis and corrective action (5) | 3 | 3 | 3 | Analysis and action taken is not seen much |
| 9.4. | Self-Learning | 5 | A. Scope for self-learning (2) | 2 | 5 | 5 | |
| | | | B. Self-Learning facilities, materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization (3) | 3 | | | |
| 9.5. | Career Guidance, Training, Placement | 10 | A. Availability of career guidance facilities (2) | 2 | 10 | 10 | |
| | | | B. Counseling for higher studies (GATE/GRE, GMAT, etc.) (2) | 2 | | | |
| | | | C. Pre-placement training (3) | 3 | | | |
| | | | D. Placement process and support (3) | 3 | | | |
| 9.6. | Entrepreneurship Cell | 5 | A. Entrepreneurship initiatives (1) | 1 | 3 | 3 | Limited |
| | | | B. Data on students benefitted (4) | 2 | | | |
| 9.7. | Co-curricular and Extra-curricular Activities | 10 | A. Availability of sports and cultural facilities (3) | 3 | 8 | 8 | NSS and other units but no NCC unit |
| | | | B. NCC, NSS and other clubs (3) | 2 | | | |
| | | | C. Annual students activities (4) | 3 | | | |
| Total of Criterion 9: | | | | Overall Marks for Criterion 9: | | 40 | |

(Signature)

 Chairman

Criterion 10: Governance, Institutional Support and Financial Resources (120)

| S.No. | Sub Criteria | Max. Marks | Evaluation Guidelines | Marks Awarded | | Overall Marks | Observations of Evaluators (Provide Justifications/ Reasons) |
|-----------|---|------------|--|---------------|-------|---------------|--|
| | | | | Marks | Total | | |
| 10.1. | Organization, Governance and Transparency | 40 | | | | | |
| 10.1.1. | State the Vision and Mission of the Institute | 5 | | 2 | 5 | | |
| | | | A. Availability of the Vision & Mission statements of the Institute (2) | 3 | | | |
| | | | B. Appropriateness/Relevance of the Statements (3) | 4 | 10 | | |
| 10.1.1.1. | Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies | 10 | A. Governing Body Composition, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; participation details of external members and attendance therein (4) | 3 | | | |
| 10.1.1.2. | | | B. The published service rules, policies and procedures with year of publication (3) | 3 | | | |
| | | | C. Minutes of the meetings and action-taken reports (3) | 1 | 8 | | 36 |
| 10.1.1.3. | Decentralisation in working and grievance redressal mechanism | 10 | | 2 | | | |
| | | | A. List the names of the faculty members who have been delegated powers for taking administrative decisions (1) | 5 | | | |
| | | | B. Specify the mechanism and composition of grievance redressal cell (2) | 3 | 8 | | |
| | | | C. Action taken report as per 'B' above (7) | 5 | | | |
| 10.1.4. | Delegation of financial powers | 10 | | 5 | | | |
| | | | A. Financial powers delegated to the Principal, Heads of Departments and relevant in-charges (3) | 2 | 5 | | |
| | | | B. Demonstrate the utilization of financial powers for each of the assessment years (7) | 3 | | | |
| 10.1.5. | Transparency and availability of correct/unambiguous information in public domain | 5 | | 2 | | | |
| | | | A. Information on the policies, rules, processes is to be made available on web site (2) | 3 | | | |
| | | | B. Dissemination of the information about student, faculty and staff (3) | | | | |
| 10.2. | Budget Allocation, Utilization, and Public Accounting at Institute level | 30 | | 5 | 10 | | |
| | | | Expenditure per student: Rs. 1.079/- lacs per year | | | | |
| | | | Fee per student: Rs. 0.909/- per year | | | | |
| 10.2.1. | Adequacy of Budget allocation | 10 | | 5 | | | |
| | | | A. Quantum of budget allocation for three years (5) | 14 | 14 | | |
| | | | B. Justification of budget allocated for three years (5) | | | | |
| 10.2.2. | Utilization of allocated funds | 15 | | | | | |
| | | | Budget utilization for three years (15) | | | | |
| 10.2.3. | Availability of the audited statements on the institute's website | 5 | | 5 | | | |
| | | | Availability of Audited statements on website (5) | | | 29 | |

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| 10.3. | Program Specific Budget Allocation, Utilization | 30 | To be evaluated in consultation with the Program Experts | | | | 12 |
|------------------------|---|-----|--|---|---|----|----|
| | | | A. Quantum of budget allocation for three years (5) | 4 | 8 | 4 | |
| 10.3.1. | Adequacy of budget allocation | 10 | B. Justification of budget allocated for three years (5) | 4 | | | |
| 10.3.2. | Utilization of allocated funds | 20 | Budget utilization for three years (20) | 4 | 4 | | |
| 10.4. | Library and Internet | 20 | | | | | |
| 10.4.1. | Quality of learning resources (hard/soft) | 10 | A. Availability of relevant learning resources including e-resources and Digital Library (7) | 6 | 9 | | |
| | | | B. Accessibility to students (3) | 3 | | | |
| | | | A. Available bandwidth (4) | 3 | 9 | | |
| | | | B. Wi Fi availability (2) | 2 | | | |
| 10.4.2. | Internet | 10 | C. Internet access in labs, classrooms, library and offices of all Departments (2) | 2 | | | |
| | | | D. Security mechanism (2) | 2 | | | |
| Total of Criterion 10: | | 120 | Overall Marks for Criterion 10: | | | 95 | |

Dharmin
 Prof. Dharminder Kumar
 Chairman