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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

File No. 26-11-2010-NBA

Date: 02.06.2023

To,
The Principal
Government Engineering College,
Thrissur, Kerala – 680009

Subject: Accreditation status of programs applied by Government Engineering College, Thrissur, Kerala – 680009, Karnataka.

Sir,

This has reference to your application I.D. No. 5265-18/01/2021 seeking accreditation by National Board of Accreditation to the PG Engineering programs applied by Government Engineering College, Thrissur, Kerala – 680009.

2. An Expert Team conducted onsite evaluation of the programs from 17th to 19th March, 2023. 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) (PG)	Basis of Evaluation	Accreditation Status	Period of validity	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1.	Environmental Engineering	May 2017 Document	Accredited	Academic Years 2023-2024 to 2025-2026 i.e. upto 30-06-2026	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.	Power Systems		Accredited		
3.	Process Control		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 accreditation status awarded to the programs as indicated in the above table does not imply that the accreditation has been granted to **Government Engineering College, Thrissur, Kerala – 680009** 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.

19/7


(Signature)

Contd./_

GOVERNMENT ENGINEERING COLLEGE THRISSUR	
Inward No:	Date: 19/07/2023
PRINCIPAL	SECTION C5
AA 	A0 
SS I	SS II
JS I	JS II

5. 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.
6. 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.
7. A copy each of the Report of Chairman of the Visiting Team and Evaluators' Reports in respect of the above programs is enclosed.
8. 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

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Government Engineering College,
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Subject: Accreditation status of program applied by Government Engineering College, Thrissur, Kerala – 680009.

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Sl. No.	Name of the Program(s) (PG)	Basis of Evaluation	Accreditation Status
(1)	(2)	(3)	(4)
1.	Computer Science & Engineering	May 2017 Document	Not Accredited *

* Observation made during the course of evaluation are indicated in Annexure to this letter.

3. A copy each of Report of Chairman of the Visiting Team and Evaluators' report in respect of the above program is enclosed.

4. 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 of Expert Report of the Visiting Team.

ANNEXURE

Government Engineering College, Thrissur, Kerala – 680009

Name of Program (s) (PG)	Observations
Computer Science & Engineering	No Professor with a Ph.D. degree with expertise in the domain of the program under consideration is available in CAY (2021-2022). Therefore, the program does not meet on of the essential parameters for accreditation for 3 years.



PART A



Evaluator's Visit Report

Postgraduate Engineering Program

Name of the Institution

Govt. Engineering College, Thrissur

Name of the Program

PG- Process control

Visit Dates

17-19th March 2023

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 17 to 19th March at Govt Engg College, Thrissur to evaluate PG Engineering program

Process Control

Pre visit meeting of the expert team was held on at 17/3/2023 at 8:00 am 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 Principal.

The briefing on the institution was given by Principal and on the program was given by the HOD, Chemical Engg (The Department/Program Coordinator).

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



Students



members

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

The Department is running one UG and two PG programs in the Process Control and HSE.

Good number of faculty and laboratory supporting staff.

SAR is good. The admission through GATE is almost negligible. Professional Society chapters exist in the department but activities and publication of magazine needs attention.

The infrastructure is sufficient and good space is available for the laboratories.

Program Details

Name of the Program		PG- Process control			
Year of Commencement	1972				
Student	Year	Sanctioned Intake		Actual Admitted	
	CAY (2021 - 2022)	18		15	
	CAY m1 (2020 - 2021)	18		13	
	CAY m2 (2019 - 2020)	18		16	
	Total Students in the Programme 1 st & 2 nd Year	36		28	
	Averaged for CAY, CAYm1 and CAYm2	36/18 = 2		28/15 = 1.87	
Faculty (Attach a Copy of faculty list compared with Time Table)	Regular		CAY	CAYm1	CAYm2
		Professor	2	2	2
		Associate professor	7	7	7
	Contractual	Assistant professor	5	6	5
		Professor	—	—	—
		Associate professor	—	—	—
		Assistant professor	4	—	—
		No. of PhD. available in the dept.	10	10	10
		Student - Faculty ratio averaged over CAY, CAYm1 and CAYm2	$(\frac{259}{18} + \frac{230}{15} + \frac{201}{14})/3 = 14.69$		
	Name of the faculty with the domain specific qualification for the program under consideration	Professor	Dr. P.A. Solomon PhD (Chem. Engg) with expertise in the domain area		
Associate Professor		Dr. Padmavathy K.S. m.Tech (Process Control) PhD (Chem. Engg).			
Previous accreditation (if any)	First accreditation	No. of years accredited for	3 yrs (2018-19 to 2020-21)		
		With effect from	2018-19		
	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

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.

Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title PG- Process control

Strengths:

1. Dedicated and hard working faculty in the Department
2. Good infrastructure and adequate space
3. Teaching-learning process is good.
4. SFR is very good
5. Laboratories are well maintained.

Weakness/Areas of improvement:

1. No industry supported lab
2. Industry-Institute interaction is less
3. Quality research publications in SCI Journals is less
4. Research and consultancy projects needs boosting
5. Labs. needs modernization
More attention required for the projects in the
domain area.

6-

Deficiencies:

1. Admission through GATE is almost negligible.
2. No Entrepreneurship
- 3.
- 4.
- 5.

Other Observations, if any:

1. More equipments in the domain area to be added.
- 2.
- 3.
- 4.
- 5.

4. 

Department/Programme Specific Criteria:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	84	
2.	Program Outcomes and Course Outcomes	75	54	
3.	Students' Performance	75	40	
4.	Faculty Contributions	75	40	
5.	Laboratories and Research Facilities	75	54	
6.	Continuous Improvement	75	40	
TOTAL		500	312	



Signature
(Program Evaluator 1)



Signature
(Program Evaluator 2)

Declaration of Conformity with evaluator's report by the Team Chair

I agree with the observations of the program evaluators on each criterion.



Or

I agree with most of the observations of the program evaluators. However, I have following comments to make on certain criteria:

Criteria	Comments



Signature
(Chairperson)



Dr. S. MOHAN
Institute Chair Professor &
Professor of Civil Engineering
Environmental and Water Resources Engineering
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai - 600 036.

Part B-Program Assessment Worksheet

Program Level Criteria - To be Assessed by Evalutaor

Name of the Institution Govt. Engineering College, Thrissur, Kerala
 Name of the Program PG- Process Control

Criterion 1: Program Curriculum and Teaching – Learning Processes (125)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
1.1.	Program Curriculum	35					<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Overall Marks for 1.1</div> <div style="border-left: 2px solid black; height: 100%; width: 50%;"></div> </div>
1.1.1.	State the process for designing the program curriculum	10	Process used to demonstrate how the program curriculum is evolved and periodically reviewed considering the POs.				
1.1.2.	Structure of the Curriculum	5	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.2 look at the entire curriculum in detail. It shall allow an evaluator to identify oddities (if any) at the individual course level.				
1.1.3.	State the components of the curriculum	10	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.3 the evaluator can see the distribution of credits amongst different components. It allows him to decide if the curriculum is balanced				
1.1.4.	Overall quality and level of program curriculum	10	Overall Judgement of the experts. The intent of this section is to arrive at a judgment on whether or the program can allow attainment of Program Outcomes. As such it relies heavily on the domain expertise of the Evaluator. He alone can decide if the program, as given, is capable of leading to PO attainment. Were the POs actually attained is to be determined in a later section.				
In case of affiliated institutions following criteria will be applicable for Program Curriculum: In case of affiliated institutions marks will be on content beyond to cover the gaps; if any from the POs attainment perspective. It will also include the weightage on efforts put in to cover the gaps. The marks distribution will be as given below:							
1.1.	Program Curriculum	35					<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Overall Marks for 1.1</div> <div style="border-left: 2px solid black; height: 100%; width: 50%;"></div> </div>
1.1.1.	Process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes	10		8			
1.1.2.	Appropriateness of the gaps identified	5		3.5			
1.1.3.	Actions taken to bridge the gap	10		7			
1.1.4.	Overall quality and level of program curriculum	10		7.5			
Note: In case program is able to demonstrate the compliance of university curriculum in attaining the program outcomes, then the marks distribution will be as indicated for non-affiliated institutions.							

4

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
1.2.	Teaching-Learning Processes	90					
1.2.1.	Quality of end semester examination, internal semester question papers, assignments and evaluation	20	A. Process for end semester examination, internal semester question paper setting, evaluation and effective process implementation (3) B. Process to ensure questions from outcomes/learning levels perspective (3) C. Evidence of COs coverage in class tests/ Mid term tests. (7) D. Quality of Assignment and its relevance to COs (7)	2 2 5 5	14		
1.2.2.	Quality of student projects	30	A. Very clear and concise objectives (5) B. Very clear methodology, articulated using technical terms indicating all steps and tools (5) C. Cites substantial current and good quality literature (4) D. Clarity in design/setting up of experiment (4) E. Benchmarks used / Assumptions made (4) F. Interpretation of results and justification thereof and validity of the results presented (4) G. Overall presentation of the report (4)	3 3.5 2 2.5 3 2.5 2.5	19	58	More attention is required for the research projects in M. Tech in domain area.
1.2.3.	Initiatives related to industry interaction including industry internship/summer training	10	A. Industry supported laboratories (2) B. Industry involvement in partial delivery of any regular courses for students (1) C. Impact analysis of industry institute interaction and actions taken thereof (1) D. Industrial training/tours for students (1) E. Industrial /internship /summer training of more than two weeks and post training Assessment (2) F. Impact analysis of industrial training (1) G. Student feedback on initiative (2)	00 00 1 1 1 00 00	3	Overall Marks for 1.2	<ul style="list-style-type: none"> • No industry supported lab • No industry involvement in partial delivery of a regular course. • Industrial training is not Compulsory. • No impact analysis of industrial Training including Students feedback.
1.2.4.	Participation of Industry professionals in curriculum development, as examiners, in major projects	10	Documentary Evidence	7	7		
1.2.5.	Quality of laboratory work given	20	Qualitative judgement of the experts. Are the experiments so well structured that these can be done by simply following the given set of instructions?" One may not learn much in that case. Usefulness of laboratory work can be better evaluated by the amount of thought effort a student is required to put in to complete the tasks. In that case learning can happen and POs can be attained.	15	15		
Total of Criterion 1:		125	Overall Marks and Grade for Criterion 1:		(84)		

Criterion 2: Program Outcomes and Course Outcomes (75)


S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
2.1.	Establish the connect between the courses and the POs	15	A. Evidence of COs being defined for every course (3)	2	10	10 Overall Marks for 2.1.	COs and Programs Articulation matrix table needs more attention.
			B. Availability of COs embedded in the syllabi (3)	2			
			C. Explanation of Course Articulation Matrix table to be ascertained (3)	2			
			D.Explanation of Program Articulation Matrix tables to be ascertained (6)	4			
2.2.	Attainment of Program Outcomes	60				44 Overall Marks for 2.2.	
2.2.1.	Describe the assessment tools and processes used to gather the data upon which the evaluation of Program Outcome is based	20	A. List of assessment tools & processes (10)	7.5	15		
			B. The quality/relevance of assessment tools/processes used (10)	7.5			
2.2.2.	POs attainment levels with observations	40	A. Verification of documents, results and level of attainment of each PO (30)	22	29		
			B. Overall levels of attainment (10)	7			
Total of Criterion 2:		75	Overall Marks and Grade for Criterion 2:			54	

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Criterion 3: Students Performance (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
3.1.	Enrolment Ratio through GATE	20	<p>A. $\geq 80\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (20)</p> <p>B. $\geq 60\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (16)</p> <p>C. $\geq 50\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (12)</p> <p>D. $\geq 40\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (8)</p> <p>E. $\geq 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (6)</p>	00	00	00	<p> $\left(\frac{0}{18} + \frac{1}{18} + \frac{0}{10}\right) \times 100 = 5\%$ </p> <p>Mention Numbers</p>
			<p>✓ E. $< 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (0)</p>				
3.2.	Success Rate in the stipulated period of the program	20	<p>S.I. = Number of students completing program in stipulated duration/ Number of students admitted in first year of same batch;</p> <p>Average S.I. = Mean of S.I. for the last 3 batches</p> <p>Assessment points = 20 X Average S.I.</p>	18	18	18 ^{3.2}	<p> $SI = \frac{1 + 0.83 + 0.94}{3} = 0.92$ </p> <p>Mention Numbers</p> <p> $Avg SI = 0.92 \times 20 = 18.4$ </p>
3.3.	Placement, Higher studies and Entrepreneurship	20	<p>Assessment Points = 20 x average placement, i.e., $(P1+P2+P3)/3$</p> <p>Placement Index (P) = $(x + y + z)/N$;</p> <p>where, x = Number of students placed in companies or Government sector</p> <p>y = Number of students pursuing Ph.D. / JRF/ SRF</p> <p>z = No. of students turned entrepreneur in engineering/technology</p> <p>N = Total number of students admitted in first year</p>	14	14	14	<p> $Avg. Placement = \left(\frac{15}{18} + \frac{11}{16} + \frac{10}{13}\right) / 3$ </p> <p> $= 0.71 \times 20 = 14$ </p> <p>Mention Numbers</p>

4



S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
3.4.	Professional Activities	15				8 Overall Marks for 3.4	• Documentary evidences is not proper. • Professional events organized are less
3.4.1.	Student's participation in Professional societies/chapters and organizing engineering events	5	A. Availability & activities of professional societies/chapters (3)	2	3		
			B. Number, quality of engineering events (organized at institute Level- Institute/State/ National/ International Levels) (2)	1			
3.4.2.	Student's publications	10	A. Quality & Relevance of the contents and Print Material (3)	1	5		
			B. Participation of Students from the program (2)	1			
			C. List the publications along with the names of the authors and publishers, etc.(5)	3			
Total of Criterion 3:		75	Overall Marks and Grade for Criterion 3:			40	

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Criterion 4: Faculty Contributions (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.1.	Student-Faculty Ratio (SFR)	10	<p>• Marks to be given proportionally from a maximum of 10 to a minimum of 05 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>✓ <= 15-10 Marks <= 17-09 Marks <= 19-08 Marks <= 21-07 Marks <= 23- 06 Marks <= 25-05 Marks >25.0-0 Marks</p> <p>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</p>	10	10	10	$\left(\frac{259}{18} + \frac{230}{15} + \frac{201}{14} \right) / 3$ $= 14.69$
4.2.	Faculty competencies in the area of Program Specialization	30					
4.2.1.	Faculty competency in the domain area.	10		07		Overall Marks for 4.2. 21	Faculty competency in the domain area to be enhanced • Quality publications are less
4.2.2.	Faculty Research Publication	10		07			
4.2.3.	Faculty Development work	10		07			
4.3.	Faculty as participants in Faculty development /training activities /STTPs	5	Relevance of Training Program	4		Overall Marks for 4.3. 4	

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S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.4.	Research and Development	30					
4.4.1.	Sponsored Research	15	Funded research from outside; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >50Lacs 15 Marks, Amount >40 and <50Lacs - 10 Marks, Amount >30 and <40Lacs - 5 Marks, Amount >15 and <30Lacs - 2 Marks, ✓ Amount < 15 Lacs - 0 Mark	00	00	05 Overall Marks for 4.4.	Rs 13.47 lacs More attention is required for consultancy Mention numbers and sponsored research projects
4.4.2.	Consultancy (From Industry)	15	Consultancy; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >10 Lacs 15 Marks, Amount <10 and > 8 Lacs 10 Marks, Amount < 8 and >6 Lacs 8 Marks, ✓ Amount < 6 and >4 Lacs 5 Marks, Amount < 4 and >2 Lacs 2 Marks, Amount <2 Lacs 0 Mark	5	5		Rs 5.8 lacs
Total of Criterion 4:		75	Overall Marks and Grade for Criterion 4:			40	

4



Criterion 5: Laboratories and Research Facilities (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
5.1.	Adequate and well equipped laboratories in area of Program specialization	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20)	15	23	Overall Marks for 23.1	
			B. Availability of adequate and qualified technical supporting staff (10)	8			
5.2.	Research facilities / center of excellence	30		20	20	Overall Marks for 5.2 20	No center of excellence
5.3.	Access to laboratory facilities, training in the use of equipment	15		11	11	Overall Marks for 11 5.3	
Total of Criterion 5:		75	Overall Marks and Grade for Criterion 5:				(54)

Criterion 6: Continuous Improvement (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
6.1.	Actions taken based on the results of evaluation of each of the POs	25	A. Documentary Evidence of POs attainment levels (10)	7	17	Overall Marks for 17 6.1	No improvement in placement POs attainment level
			B. Identification of gaps/shortfalls (5)	3			
			C. Plan of action to bridge the gap and its Implementation (10)	7			
6.2.	Improvement in quality of projects	10		7	7	Overall Marks for 7 6.2	Projects quality needs improvement
6.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5)	2	3	Overall Marks for 3 6.3	No improvement in placement / entrepreneurship is almost negligible
			B. Improvement in Higher Studies admissions for pursuing PhD. in premier institutions (3)	1			
			C. Improvement in number of Entrepreneurs (2)	00			
6.4.	Improvement in the quality of students admitted to the program	10	Assessment is based on improvement in terms of ranks/score in GATE examination	02	2	Overall Marks for 2 6.4	No improvement in admission through GATE
6.5.	Improvement in quality of paper publication	10		5	5	Overall Marks for 5 6.5	More attention is required in research publications in SCI Journal
6.6.	Improvement in laboratories	10		6	6	Overall Marks for 6 6.6	More equipments in the domain area to be added.
Total of Criterion 6:		75	Overall Marks and Grade for Criterion 6:				(40)

19/3/23

Chairperson's Visit Report

Postgraduate Engineering Program

Name of the Institution

Government Engineering College, Thrissur, Kerala

Name of the Program

PG

Visit Dates

17th to 19th March, 2023

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

Team composition

Name of the Chairperson: Dr. S Mohan

Designation: Professor

Program 1: PG - Environmental Engineering

Program evaluator 1	Name	Prof. Sanjay Sharma
	Organization:	NITTR, Chandigarh

Program evaluator 2	Name	Dr. V. M. Topkar [former Dy. Director & Prof]
	Organization:	VJI, Mumbai

Program 2: PG Power Systems

Program evaluator 1	Name	Dr. Mangaraj Panolli
	Organization:	Madhav Institute of Tech & Science, Gwalior

Program evaluator 2	Name	Prof S. S. Dambhe
	Organization:	College of Engineering, Pune

Program 3: PG - Process Control

Program evaluator 1	Name	Prof. V. K. Rattan [Vice Chancellor]
	Organization:	GNA University, Chandigarh

Program evaluator 2	Name	Dr. Mohammed Kamil
	Organization:	Zakir Hussain College of Eng. & Tech, AMU, Aligarh.

Program 4: PG - Computer Science & Engineering

Program evaluator 1	Name	Prof. Sanjay Sakha - Wani, Tanwani
	Organization:	Dev Ahilya University, Indore

Program evaluator 2	Name	Dr. Rajeer Srivastava
	Organization:	IIT BHU, Varanasi

Program 5:

Program evaluator 1	Name	
	Organization:	

Program evaluator 2	Name	
	Organization:	

Institute Details

Year of Establishment: 1957

Physical Infrastructure and Ambience: _____

Number of programs being run in the Institute*:

- (i) UG- 08
- (ii) PG - 18

Total Number of Students:

- (i) In UG programs - 640
- (ii) In PG programs - 297

Name of programs applied for accreditation

- (i) PG - Environmental Engineering
- (ii) PG - Power Systems
- (iii) PG - Process Control
- (iv) PG - Computer Science & Engineering
- (v) _____

*to be verified from SAR

EVALUATION CRITERIA

AWARD OF ACCREDITATION FOR THE PG ENGINEERING PROGRAMS

Accreditation for 6 years:

- i. Program should score greater than or equal to 375 with 60 per cent in each criteria.
- ii. Number of Ph.D. available 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. Faculty student ratio in the department under consideration 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).
- iv. At least two Professors or one professor and one associate professor on regular basis with a Ph.D. degree having expertise in the domain of the Program under consideration should be available for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

Accreditation for 3 years:

- i. Program should score greater than or equal to 300 with 50 per cent in Criterion-IV (Faculty Contribution).
- ii. Corresponding UG Program should be accredited by NBA.
- iii. In case of Tier I, the corresponding UG Engineering program should have been granted with at least 3 Compliances (Y) for the SAR with 9 criteria and 4 Compliances (Y) for the SAR with 10 criteria or In case of Tier II, the corresponding UG Engineering program should have been granted with at least 650 marks out of 1000.
- iv. At least two Professors or one professor and one associate professor on regular basis with Ph.D. qualification with expertise in the domain of the Program under consideration should be available for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- v. The department should have at least two faculty having Ph.D. qualification for two academic year i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- vi. Faculty Student Ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic year i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2)

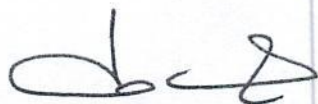
No Accreditation

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: PG - Environmental Engineering

Marks given by Evaluators:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	71	
2.	Program Outcomes and Course Outcome	75	57	
3.	Students' Performance	75	54	
4.	Faculty Contributions	75	64	
5.	Laboratories and Research Facilities	75	54	
6.	Continuous Improvement	75	41	
TOTAL		500	341	



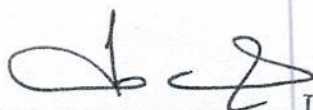
Signature **Dr. S. MOHAN**
(Chairman) Institute Chair Professor &
Professor of Civil Engineering
Environmental and Water Resources Engineering
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai - 600 036.



Name of the Program 2: PG - Power System

Marks given by Evaluators:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	71	
2.	Program Outcomes and Course Outcome	75	48	
3.	Students' Performance	75	51	
4.	Faculty Contributions	75	47	
5.	Laboratories and Research Facilities	75	59	
6.	Continuous Improvement	75	44	
TOTAL		500	320	



Signature
(Chairman)

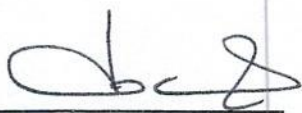


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Chennai - 600 036.

Name of the Program 3: PG - Process Control

Marks given by Evaluators:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	84	
2.	Program Outcomes and Course Outcome	75	54	
3.	Students' Performance	75	40	
4.	Faculty Contributions	75	40	
5.	Laboratories and Research Facilities	75	54	
6.	Continuous Improvement	75	40	
TOTAL		500	312	



Signature
(Chairman)

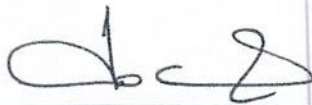


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Name of the Program 4: PG - Computer Science & Engineering

Marks given by Evaluators:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	81	
2.	Program Outcomes and Course Outcome	75	51	
3.	Students' Performance	75	50	
4.	Faculty Contributions	75	38	
5.	Laboratories and Research Facilities	75	51	
6.	Continuous Improvement	75	48	
TOTAL		500	319	



Signature
(Chairman)



Dr. S. MOHAN
Institute Chair Professor &
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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	PG-Env. Engineering	18	18	18	18	17.11
2	PG-Power Systems	18	18	18	17.93 \approx 17	13.50
3	PG-Process Control	18	18	18	15	14.69
4	PG-Computer Science & Engineering	18	18	18	18	15.52

- 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)

First Accreditation

3. Observation on general facilities and about the programs.

Strength —

- ① Infrastructure in the college is very good.
- ② Good number of well-qualified faculty members.
- ③ Student enrolment ratio is very good
- ④ Hostel facilities are good.

Concern —

- ① Sponsored research & consultancy project needs a big push in all the specialization of the departments and that would enhance the learning of PG students.
- ② The research publications by the faculty members in high quality journals is a concern.
- ③ More emphasis on Industry-related training for students in the curriculum along with Industrial case studies needs to be incorporated

[Signature]

- ④ Establishment of Centre of excellence in certain cutting edge research area is lacking for this long-standing Institute.
- ⑤ The outdoor sports facility and the indoor games facility are not at all adequate.
- ⑥ Entrepreneurship cell activities, IQAC, Industry-Institute-Interaction, Self-learning materials for students are of concern.
- ⑦ There is no ambulance and the facilities for differently abled person are not there.
- ⑧ Participation in FDP by faculty or conduct of FDP for faculty members of other institutions needs to be improved a lot in many departments.
- ⑨ More training/awareness programs on OBE need to be arranged both for faculty and students, before too much time elapses.

Weakness -

- ① Placement cell is the weakest link and its activities need to be improved and should be started much earlier.
- ② Teaching pedagogical tools or methods other than chalk and Talk, and power-point methods are merely or not at all used by faculty members and there is ample scope for utilizing the different teaching methods or pedagogical approaches, depending upon the nature of course.
- ③ The support activities for academically weak students needs improvement.
- ④ Research scholar may be allowed to work after office hours, since the college closes at 4pm itself.



4. Status of imbibing of outcome based accreditation.

- ① Formulation of PEOs, COs & mapping needs improvement and there is variability among departments.
- ② The attainment level are fixed low and it is uncommon for a long standing institution.
- ③ The continual improvement process being carried out by IQAC. but needs improvement.
- ④ Most of the stakeholders are aware of the OBE process



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GE
Env. Eng.

PART A



Evaluator's Visit Report

Postgraduate Engineering Program

Name of the Institution

Government Engineering College
Thrissur 680009, Kerala

Name of the Program

M Tech (Environmental Engineering)

Visit Dates

17-18-19 March 2023

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 17/3 to 19/3 Govt Eng College, Thrissur to evaluate PG Engineering program Environmental Engineering

Pre visit meeting of the expert team was held on at 17.3.23 at 8.00 AM 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 Bindu G R. The briefing on the institution was given by Dr Bindu G R and on the program was given by the Dr. Nowshaja P.T. Head of the Dept. 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



Students



members

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

Govt Engineering college Thrissur is Affiliated to
ABJ Technological university, Kerala and was established
in 1957. The PG Prog in Environ Eng was started
in 1971 and has intake of English students.
During the visit it was observed that PG
Program in Environ Eng has adequate qualified
faculty; Good laboratories and staff to
run the Programme. The placements are adequate
and Good Project Work is being done by
the final year students. The Programme was
accredited for three years in 2018.

Dr. Nowshaja P.T.

V.M. Topkian
(V.M. Topkian)

Program Details

Name of the Program					
Year of Commencement	1957				
Student	Year	Sanctioned Intake		Actual Admitted	
	CAY (2021 - 2022)	18		18	
	CAY m1 (2020 - 2021)	18		18	
	CAY m2 (2019 - 2020)	18		18	
	Total Students in the Programme 1 st & 2 nd Year	36			
	Averaged for CAY, CAYm1 and CAYm2	18			
Faculty (Attach a Copy of faculty list compared with Time Table)	Regular	Professor	CAY	CAYm1	CAYm2
		Associate professor	06	09	12
		Assistant professor	10	12	12
	Contractual	Professor	10	08	04
		Associate professor	-	-	-
		Assistant professor	-	-	-
	No. of PhD. available in the dept.		06	03	05
	Student - Faculty ratio averaged over CAY, CAYm1 and CAYm2		17.11		
	Name of the faculty with the domain specific qualification for the program under consideration	Professor	CAY	CAYm1	
		Associate Professor	Dr Meera V	Dr Meera V	
		1. Dr Minimal 2. Dr Sasamony 3. Dr A L Neere 4. Prof Bindu G 5. Prof Meera	1. Dr Minimal 2. Dr Sasamony 3. Dr A L Neere 4. Prof Bindu G 5. Prof Meera		
Previous accreditation (if any)	First accreditation	No. of years accredited for	3 years		
		With effect from	2018		
	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

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.

[Signature]

[Signature]

Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title M.Tech. (Environmental Engineering)

Strengths:

1. The Programme had good faculty ratio and well qualified faculty available for the Prog.
2. The Enrollment ratio with Gate is also adequate.
3. Success rate in the stipulated period is good.
4. Faculty with required competence in core domain Area available
5. The faculty has good no. of sponsored Projects.
6. well equipped labs available for the Prog.

Weakness/Areas of improvement:

1. Industry Participation in curriculum design and projects is less
2. Industrial Training and industry supplied levels are not available
3. The lab work given to students is not designed so as to apply thought process in conduct of experiment.
4. Students publication from dissertation work is very less.
5. Faculty publication in good journals is inadequate and not all faculty is publishing Papers.

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✓✓

Deficiencies:

1. Industry - institute interaction needs improvement.

2.

3.

4.

5.

Other Observations, if any:

1.

2.

3.

4.

5.

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EVALUATION CRITERIA

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
No Accreditation

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

Department/Programme Specific Criteria:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	71	
2.	Program Outcomes and Course Outcomes	75	57	
3.	Students' Performance	75	54	
4.	Faculty Contributions	75	64	
5.	Laboratories and Research Facilities	75	54	
6.	Continuous Improvement	75	41	
TOTAL		500	341	


(Dr. Sajay K. Shetty)
Signature
(Program Evaluator 1)


(Vinay M. Topkar)
Signature
(Program Evaluator 2)

Declaration of Conformity with evaluator's report by the Team Chair

I agree with the observations of the program evaluators on each criterion.



Or

I agree with most of the observations of the program evaluators. However, I have following comments to make on certain criteria:

Criteria	Comments

Signature
(Chairperson)



Dr. S. MOHAN
Institute Chair Professor &
Professor of Civil Engineering
Environmental and Water Resources Engineering
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai - 600 036.

Part B-Program Assessment Worksheet

Program Level Criteria - To be Assessed by Evalutaor

Name of the Institution Govt Engg College, Thrissur
 Name of the Program M.Tech (Environmental Engineering)

Criterion 1: Program Curriculum and Teaching – Learning Processes (125)							Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks	Awarded Marks	Total		
1.1.	Program Curriculum	35					Overall Marks for 1.1	
1.1.1.	State the process for designing the program curriculum	10	Process used to demonstrate how the program curriculum is evolved and periodically reviewed considering the POs.					
1.1.2.	Structure of the Curriculum	5	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.2 look at the entire curriculum in detail. It shall allow an evaluator to identify oddities (if any) at the individual course level.					
1.1.3.	State the components of the curriculum	10	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.3 the evaluator can see the distribution of credits amongst different components. It allows him to decide if the curriculum is balanced					
1.1.4.	Overall quality and level of program curriculum	10	Overall Judgement of the experts. The intent of this section is to arrive at a judgment on whether or the program can allow attainment of Program Outcomes. As such it relies heavily on the domain expertise of the Evaluator. He alone can decide if the program, as given, is capable of leading to PO attainment. Were the POs actually attained is to be determined in a later section.					

In case of affiliated institutions following criteria will be applicable for Program Curriculum:

In case of affiliated institutions marks will be on content beyond to cover the gaps; if any from the POs attainment perspective. It will also include the weightage on efforts put in to cover the gaps. The marks distribution will be as given below:

1.1.	Program Curriculum	35					Overall Marks for 1.1	Elaborate process is defined, logical justification is missing. Gaps identified. Process is not effective. Action taken to bridge gap insufficient, effectiveness is not verified. Overall balanced, some lacuna not enough to meet all POs
1.1.1.	Process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes	10			7	7		
1.1.2.	Appropriateness of the gaps identified	5			3	3		
1.1.3.	Actions taken to bridge the gap	10			5	5		
1.1.4.	Overall quality and level of program curriculum	10			7	7		

Note: In case program is able to demonstrate the compliance of university curriculum in attaining the program outcomes, then the marks distribution will be as indicated for non-affiliated institutions.

(Sangeetha S. Shree)

(Vinay M. Tapkar)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations or Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
1.2.	Teaching-Learning Processes	90					
1.2.1.	Quality of end semester examination, internal semester question papers, assignments and evaluation	20	A. Process for end semester examination, internal semester question paper setting, evaluation and effective process implementation (3) B. Process to ensure questions from outcomes/learning levels perspective (3) C. Evidence of COs coverage in class tests/ Mid term tests. (7) D. Quality of Assignment and its relevance to COs (7)	2 2 5 4	13		Process for moderation / evaluation of QP exists. Process to ensure OC perspective in QP exists. Documentation available for COs coverage in tests. Assignments relevant but need improvement to meet CO attainment. Quality of student projects is good, need to increase number of industry related topics.
1.2.2.	Quality of student projects	30	A. Very clear and concise objectives (5) B. Very clear methodology, articulated using technical terms indicating all steps and tools (5) C. Cites substantial current and good quality literature (4) D. Clarity in design/setting up of experiment (4) E. Benchmarks used / Assumptions made (4) F. Interpretation of results and justification thereof and validity of the results presented (4) G. Overall presentation of the report (4)	4 3 3 3 3 3 3	22		
1.2.3.	Initiatives related to industry interaction including industry internship/summer training	10	A. Industry supported laboratories (2) B. Industry involvement in partial delivery of any regular courses for students (1) C. Impact analysis of industry institute interaction and actions taken thereof (1) D. Industrial training/tours for students (1) E. Industrial /internship /summer training of more than two weeks and post training Assessment (2) F. Impact analysis of industrial training (1) G. Student feedback on initiative (2)	0 0 0 1 0 0 0	01	Overall Marks for 1.2 49	No industry involvement in development of labs, delivery of curriculum etc. Students have done only very few visits to industry.
1.2.4.	Participation of Industry professionals in curriculum development, as examiners, in major projects	10	Documentary Evidence	3	03		Very limited participation in curriculum development. No participation in project evaluation.
1.2.5.	Quality of laboratory work given	20	Qualitative judgement of the experts. Are the experiments so well structured that these can be done by simply following the given set of instructions?" One may not learn much in that case. Usefulness of laboratory work can be better evaluated by the amount of thought effort a student is required to put in to complete the tasks. In that case learning can happen and POs can be attained.	10	10		Only set experiments as defined in curriculum are done. Students are not required to apply any thought process to set up & conduct experiments.
Total of Criterion 1:		125	Overall Marks and Grade for Criterion 1:			71	

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125

Criterion 2: Program Outcomes and Course Outcomes (75)						Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines		Marks	Total	Marks		
2.1.	Establish the connect between the courses and the POs	15	A. Evidence of COs being defined for every course (3)		3	11	Overall Marks for 2.1 11	COs defined & part of syllabus. Articulation matrix prepared but not explained properly.	
			B. Availability of COs embedded in the syllabi (3)		3				
			C. Explanation of Course Articulation Matrix table to be ascertained (3)		2				
			D.Explanation of Program Articulation Matrix tables to be ascertained (6)		3				
2.2.	Attainment of Program Outcomes	60					Overall Marks for 2.2 46	Assessment tools & processes defined, are relevant. PO attainment level captured documentation available	
2.2.1.	Describe the assessment tools and processes used to gather the data upon which the evaluation of Program Outcome is based	20	A. List of assessment tools & processes (10)		8	16			
			B. The quality/relevance of assessment tools/processes used (10)		8				
2.2.2.	POs attainment levels with observations	40	A. Verification of documents, results and level of attainment of each PO (30)		23	30			
			B. Overall levels of attainment (10)		7				
Total of Criterion 2:		75	Overall Marks and Grade for Criterion 2:				57		

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Criterion 3: Students' Performance (75)						
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall
				Marks	Total	Marks
3.1.	Enrolment Ratio through GATE	20	<p>A. $\geq 80\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (20)</p> <p>B. $\geq 60\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (16)</p> <p>C. $\geq 50\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (12)</p> <p>D. $\geq 40\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (8)</p> <p>E. $\geq 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (6)</p> <p>E. $< 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (0)</p>	16	16	<p>Overall Marks for 3.1</p> <p>16</p> <p>Mention Numbers</p> $\left\{ \frac{12}{18} + \frac{12}{18} + \frac{13}{18} \right\} \times \frac{1}{3}$ ≈ 0.68
3.2.	Success Rate in the stipulated period of the program	20	<p>S.I. = Number of students completing program in stipulated duration/ Number of students admitted in first year of same batch;</p> <p>Average S.I. = Mean of S.I. for the last 3 batches</p> <p>Assessment points = 20 X Average S.I.</p>	20	20	<p>Overall Marks for 3.2</p> <p>20</p> <p>Mention Numbers</p> $\left\{ \frac{17}{18} + \frac{18}{18} + \frac{18}{18} \right\} \times \frac{1}{3} \times 20$ ≈ 19.60
3.3.	Placement, Higher studies and Entrepreneurship	20	<p>Assessment Points = 20 x average placement, i.e., $(P1+P2+P3)/3$</p> <p>Placement Index (P) = $[(x+y+z)/N]$;</p> <p>where, x = Number of students placed in companies or Government sector</p> <p>y = Number of students pursuing Ph.D. / JRF/ SRF</p> <p>z = No. of students turned entrepreneur in engineering/technology</p> <p>N = Total number of students admitted in first year</p>	10	10	<p>Overall Marks for 3.3</p> <p>10</p> <p>Mention Numbers</p> $\left[\frac{12+0+0}{18} + \frac{4+0+0}{18} + \frac{10+0+0}{18} \right] \times 20$ ≈ 10.2

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S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Remarks/ Justifications/ Reasons)	
				Marks	Total	Marks		
3.4.	Professional Activities	15						
3.4.1.	Student's participation in Professional societies/chapters and organizing engineering events	5	A. Availability & activities of professional societies/chapters (3)	2	03	Overall Marks for 3.4 08	Chapters of ISTE, IEC(1) & IEC(2) exist for activities are less in no. Student publications are very less	
			B. Number, quality of engineering events (organized at institute Level- Institute/State/ National/ International Levels) (2)	1				
3.4.2.	Student's publications	10	A. Quality & Relevance of the contents and Print Material (3)	2	05			
			B. Participation of Students from the program (2)	1				
			C. List the publications along with the names of the authors and publishers, etc.(5)	2				
Total of Criterion 3:			Overall Marks and Grade for Criterion 3:			54		

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Criterion 4: Faculty Contributions (75)

Criterion 4: Faculty Contributions (75)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.1.	Student-Faculty Ratio (SFR)	10	<p>•Marks to be given proportionally from a maximum of 10 to a minimum of 05 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>< = 15-10 Marks < = 17-09 Marks < = 19-08 Marks < = 21-07 Marks < = 23- 06 Marks < = 25-05 Marks >25.0-0 Marks</p> <p>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:</p> <p>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</p>	10	10	Overall Marks for 4.1	$\left\{ \frac{558}{32} + \frac{547}{32} + \frac{556}{33} \right\} \frac{1}{3}$ ≈ 17.11
4.2.	Faculty competencies in the area of Program Specialization	30				Overall Marks for 4.2.	Competent faculty available but publications available but limited in no & few faculty has the publication involvement of faculty in development work is limited
4.2.1.	Faculty competency in the domain area.	10		9	20	20	
4.2.2.	Faculty Research Publication	10		6			
4.2.3.	Faculty Development work	10		5			
4.3.	Faculty as participants in Faculty development /training activities /STTPs	5	Relevance of Training Program	4	4	Overall Marks for 4.3. 04	Relevant training programs arrayed, faculty participation is adequate

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S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.4.	Research and Development	30					
4.4.1.	Sponsored Research	15	Funded research from outside; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >50Lacs 15 Marks, Amount >40 and <50Lacs - 10 Marks, Amount >30 and <40Lacs - 5 Marks, Amount >15 and <30Lacs - 2 Marks, Amount < 15 Lacs - 0 Mark	15	15	Overall Marks for 4.4. 30	Funded research amounting to Rs 60.05 lakhs (contribution of Env Eng faculty is negligible adequate.) Mention numbers
4.4.2.	Consultancy (From Industry)	15	Consultancy; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >10 Lacs 15 Marks, Amount <10 and > 8 Lacs 10 Marks, Amount < 8 and >6 Lacs 8 Marks, Amount < 6 and >4 Lacs 5 Marks, Amount < 4 and >2 Lacs 2 Marks, Amount <2 Lacs 0 Mark	15	15		Consultancy amounting to Rs 4 cr (contribution of Env Eng faculty is negligible)
Total of Criterion 4:		75	Overall Marks and Grade for Criterion 4:			64	

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Criterion 5: Laboratories and Research Facilities (75)										
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)			
				Marks	Total	Marks				
5.1.	Adequate and well equipped laboratories in area of Program specialization	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20)	17	25	Overall Marks for 5.1 25	Laboratory instruments in good condition, matches curriculum requirement			
			B. Availability of adequate and qualified technical supporting staff (10)	8						
5.2.	Research facilities / center of excellence	30		17	17	Overall Marks for 5.2 17	No CoE exists, no state of art eqpt desirable			
5.3.	Access to laboratory facilities, training in the use of equipment	15		12	12	Overall Marks for 5.3 12	Access available after working hours			
Total of Criterion 5:		75	Overall Marks and Grade for Criterion 5:			54				
Criterion 6: Continuous Improvement (75)										
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)			
				Marks	Total	Marks				
6.1.	Actions taken based on the results of evaluation of each of the POs	25	A. Documentary Evidence of POs attainment levels (10)	8	16	Overall Marks for 6.1 16	Action plan to bridge gaps is missing in content & implementation evidence is poor			
			B. Identification of gaps/shortfalls (5)	3						
			C. Plan of action to bridge the gap and its Implementation (10)	5						
6.2.	Improvement in quality of projects	10		6	06	Overall Marks for 6.2 06	No substantial improvement observed			
6.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5)	2	02	Overall Marks for 6.3 02	No improvement in placement			
			B. Improvement in Higher Studies admissions for pursuing PhD. in premier institutions (3)	0						
			C. Improvement in number of Entrepreneurs (2)	0						
6.4.	Improvement in the quality of students admitted to the program	10	Assessment is based on improvement in terms of ranks/score in GATE examination	5	5	Overall Marks for 6.4 05	No significant change in quality of students			
6.5.	Improvement in quality of paper publication	10		5	5	Overall Marks for 6.5 05	No significant improvement			
6.6.	Improvement in laboratories	10		7	7	Overall Marks for 6.6 07	Very few instruments added during evaluation period			
Total of Criterion 6:		75	Overall Marks and Grade for Criterion 6:			41				

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PART A**Evaluator's Visit Report****Postgraduate Engineering Program****Name of the Institution**

Govt. Engineering College, Thrissur, Kerala

Name of the Program

PG- Power Systems

Visit Dates

17th to 19th March 2023.

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

M. Sankar
18/3/2023

B. Sankar
18/3/2023

Program Evaluator Summary

Overview

The Expert team of National Board of Accreditation (NBA) conducted a three day accreditation visit from 17/3/23 to 19/3/23 at Government Engineering College, Thrissur, Kerala to evaluate PG Engineering program PG Power System.

Pre visit meeting of the expert team was held on at Hotel, on 17/3/23, at 8 am 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. Bindu G.R., Principal. The briefing on the institution was given by Principal and on the program was given by the Dr. Jasmin E.A., HOD Document/Program Coordinator. 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

☐

Students

☐

members

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

- The department is well maintained and spacious.
- Good team work is observed in general.

M. J. J. J.
18/3/2023

13/3/2023
18/3/2023

Program Details

Name of the Program					
Year of Commencement			Pq1 + Pq2 + Vq1	Pq1 + Pq2 + Vq1	
Student	Year		Sanctioned Intake	Actual Admitted	
	CAY (20 <u>21</u> - 20 <u>23</u>)		18 + 18 + 132	15 + 15 + 128 (119 + 9)	
	CAY m1 (20 <u>20</u> - 20 <u>21</u>)		18 + 18 + 132	19 + 19 + 132 (including EWS)	
	CAY m2 (20 <u>19</u> - 20 <u>20</u>)		18 + 18 + 110	18 + 18 + 114	
	Total Students in the Programme 1 st & 2 nd Year		36	+ 37 (including EWS as per Govt)	
	Averaged for CAY, CAYm1 and CAYm2		18 + 18 + 123	17.33 + 17.33 + 124	
Faculty (Attach a Copy of faculty list compared with Time Table)	Regular		CAY	CAYm1	CAYm2
		Professor	5	7	5
		Associate professor	14	13	17
	Contractual	Assistant professor	14	9	8
		Professor	—	—	—
		Associate professor	—	—	—
		Assistant professor	1	2	4
	No. of PhD. available in the dept.		12	15	13
	Student - Faculty ratio averaged over CAY, CAYm1 and CAYm2		@14 (13.5)		
	Name of the faculty with the domain specific qualification for the program under consideration	Professor	CAY Dr. Jagmin E.A. Dr. Bindhumol E.K. Dr. Suresh K.D. Dr. Meenakshy K.	CAYm1 Dr. Bindhumol E.K. Dr. Suresh K.D. Dr. Meenakshy K.	
Associate Professor		Prof. Subadhra P.R. Dr. Mini V. Dr. M.J. Laly	Prof. Subadhra P.R. Dr. Mini V. Prof. M.J. Laly		
Previous accreditation (if any)	First accreditation	No. of years accredited for	2 Yrs + 1 Yr compliance		
		With effect from	1 - 7 - 2019		
	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

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.

M. Andel
10/3/2023

18/3/2023

Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title P. G. Power System

Strengths:

1. Space and civil infra to run all the program is sufficient and well maintained. Scope for the expansion.
2. Good number of students are admitted
- Success Rate is very good.
3. SFR is very good and faculty are qualified.
- Cadre Ratio is good, Support staff is good in number
4. Few Research papers are of high quality.
- Department is running full time PhD Program.
5. FDP and STTP attended by faculty are good in number

Weakness/Areas of improvement:

1. Program Curriculum, gap identification, action taken need to be improved.
- Quality of internal/external examination, projects, assignment need improvement.
2. Industry institute interaction is limited. Less industry participation.
- Quality of Lab work and evaluation is a area of improvement.
3. Overall OBE awareness and implementation is limited.
- Processes for PO attainment, Target Setting, action taken is to be improved.
4. Enrolment ratio through GATE, quality of placement need to be improved.
- Professional chapter activities and involvement of student need to be improved.
5. Publications, IPR, Sponsored research and consultancy need to be improved.
- Faculty outreach, state of the art Labs, research facilities and continuous improvement, action taken on last report need to be improved.
- Interdisciplinary courses & research is limited.

4 M. Pandit
10/3/2023

B. J. Jadhav
18/3/2023

Deficiencies:

- No Industry Supported Lab
- No Centre of Excellence
- No Entrepreneurship.
- No student is working on Industry Supported project.
- Hardware projects (in new areas) are very less.
- No external academic audit

Other Observations, if any:

1. Some equipments are very old and out of order
2. Space can be effectively utilized so as to offer
seperate cabin to faculty
- 3.
- 4.
- 5.

M Pandil
18/3/2023

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Department/Programme Specific Criteria:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	71	
2.	Program Outcomes and Course Outcomes	75	48	
3.	Students' Performance	75	51	
4.	Faculty Contributions	75	47	
5.	Laboratories and Research Facilities	75	59	
6.	Continuous Improvement	75	44	
TOTAL		500	320	

Sanjay S. Dombhare
18/03/2023

Signature
(Program Evaluator 1)

Dr. Sanjay S. Dombhare
COEP Tech. University.
PUNE

M. Pandit
18/3/2023

Signature
(Program Evaluator 2)

Dr. Manjaree Pandit
Professor, Dept of EE
MITS, Gwalior 474005

Declaration of Conformity with evaluator's report by the Team Chair

I agree with the observations of the program evaluators on each criterion.



Or

I agree with most of the observations of the program evaluators. However, I have following comments to make on certain criteria:

Criteria	Comments

Signature
(Chairperson)



Dr. S. MOHAN
Institute Chair Professor &
Professor of Civil Engineering
Environmental and Water Resources Engineering
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai - 600 036.

Part B-Program Assessment Worksheet

Program Level Criteria - To be Assessed by Evaluator

Date of visit - 17-19th March

Name of the Institution Government Engineering College, Thrissur, Kerala - 680009
 Name of the Program P. G. Power System

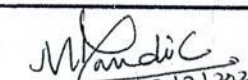
Criterion 1: Program Curriculum and Teaching - Learning Processes (125)						
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks
				Marks	Total	
1.1.	Program Curriculum	35				Overall Marks for 1.1
1.1.1.	State the process for designing the program curriculum	10	Process used to demonstrate how the program curriculum is evolved and periodically reviewed considering the POs.			
1.1.2.	Structure of the Curriculum	5	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.2 look at the entire curriculum in detail. It shall allow an evaluator to identify oddities (if any) at the individual course level.			
1.1.3.	State the components of the curriculum	10	Refer to SAR: Expectation in 1.1.2 & 1.1.3 is that the curriculum is well balanced structure & appropriate for a PG program. In 1.1.3 the evaluator can see the distribution of credits amongst different components. It allows him to decide if the curriculum is balanced			
1.1.4.	Overall quality and level of program curriculum	10	Overall Judgement of the experts. The intent of this section is to arrive at a judgment on whether or the program can allow attainment of Program Outcomes. As such it relies heavily on the domain expertise of the Evaluator. He alone can decide if the program, as given, is capable of leading to PO attainment. Were the POs actually attained is to be determined in a later section.			

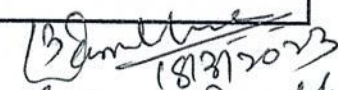
In case of affiliated institutions following criteria will be applicable for Program Curriculum:

In case of affiliated institutions marks will be on content beyond to cover the gaps; if any from the POs attainment perspective. It will also include the weightage on efforts put in to cover the gaps. The marks distribution will be as given below:

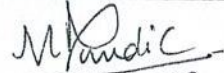
1.1.	Program Curriculum	35				Overall Marks for 1.1 23	<ul style="list-style-type: none"> limited processes to identify extent of compliance limited efforts for gap identification & limited action taken to bridge the gap. High weightage is to core power system courses. (traditional)
1.1.1.	Process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes	10		7	7		
1.1.2.	Appropriateness of the gaps identified	5		3	3		
1.1.3.	Actions taken to bridge the gap	10		6	6		
1.1.4.	Overall quality and level of program curriculum	10		7	7		

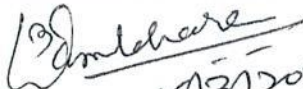
Note: In case program is able to demonstrate the compliance of university curriculum in attaining the program outcomes, then the marks distribution will be as indicated for non-affiliated institutions.


 18/3/2023
 (Dr. Manjaree Pandit)


 18/3/2023
 Dr. Sanjay S. Dambhare
 COEP - Team, University, PUNE

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
1.2.	Teaching-Learning Processes	90					
1.2.1.	Quality of end semester examination, internal semester question papers, assignments and evaluation	20	A. Process for end semester examination, internal semester question paper setting, evaluation and effective process implementation (3) B. Process to ensure questions from outcomes/learning levels perspective (3) C. Evidence of COs coverage in class tests/ Mid term tests. (7) D. Quality of Assignment and its relevance to COs (7)	2 2 3 4	11		<ul style="list-style-type: none"> Quality of internal, end semester question paper and assignments is low. Most questions are mapping with LOTS (lower level thinking skills)
1.2.2.	Quality of student projects	30	A. Very clear and concise objectives (5) B. Very clear methodology, articulated using technical terms indicating all steps and tools (5) C. Cites substantial current and good quality literature (4) D. Clarity in design/setting up of experiment (4) E. Benchmarks used / Assumptions made (4) F. Interpretation of results and justification thereof and validity of the results presented (4) G. Overall presentation of the report (4)	3 3 2 2 2 2 2	16		<ul style="list-style-type: none"> Overall quality of projects is not upto the marks Most projects are on basic system computation and are simulation based.
1.2.3.	Initiatives related to industry interaction including industry internship/summer training	10	A. Industry supported laboratories (2) B. Industry involvement in partial delivery of any regular courses for students (1) C. Impact analysis of industry institute interaction and actions taken thereof (1) D. Industrial training/tours for students (1) E. Industrial /internship /summer training of more than two weeks and post training Assessment (2) F. Impact analysis of industrial training (1) G. Student feedback on initiative (2)	00 0.5 0.5 01 1 0.5 0.5	4	Overall Marks for 1.2 48	<ul style="list-style-type: none"> No industry supported projects No industry supported Lab Overall industry institute interaction is weak. Participation of industry is less.
1.2.4.	Participation of Industry professionals in curriculum development, as examiners, in major projects	10	Documentary Evidence	5	5		
1.2.5.	Quality of laboratory work given	20	Qualitative judgement of the experts. Are the experiments so well structured that these can be done by simply following the given set of instructions?" One may not learn much in that case. Usefulness of laboratory work can be better evaluated by the amount of thought effort a student is required to put in to complete the tasks. In that case learning can happen and POs can be attained.	12	12		<ul style="list-style-type: none"> Title of expt, Lab records are not well written. Overall quality of Lab work and usefulness is not upto the marks. Emphasis is on s/w, not on H/W
Total of Criterion 1:		125	Overall Marks and Grade for Criterion 1:		71		


 18/3/2023
 (Dr M. Pandik)


 18/3/2023

Criterion 2: Program Outcomes and Course Outcomes (75)

Criterion 2: Program Outcomes and Course Outcomes (75)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
2.1.	Establish the connect between the courses and the POs	15	A. Evidence of COs being defined for every course (3)	3	11	Overall Marks for 2.1 11	• Overall OBE awareness in stakeholders is limited. • Mapping matrix correlation is less in some cases
			B. Availability of COs embedded in the syllabi (3)	3			
			C. Explanation of Course Articulation Matrix table to be ascertained (3)	2			
			D.Explanation of Program Articulation Matrix tables to be ascertained (6)	3			
2.2.	Attainment of Program Outcomes	60				Overall Marks for 2.2 37	• Quality/relevance of the tools and processes & the data collected - low. • documentary evidences of attainment - less.
2.2.1.	Describe the assessment tools and processes used to gather the data upon which the evaluation of Program Outcome is based	20	A. List of assessment tools & processes (10)	6	12		
			B. The quality/relevance of assessment tools/processes used (10)	6			
2.2.2.	POs attainment levels with observations	40	A. Verification of documents, results and level of attainment of each PO (30)	19	25		
			B. Overall levels of attainment (10)	6			
Total of Criterion 2:		75	Overall Marks and Grade for Criterion 2:			48	

M. Pandit
18/3/2023.
(Dr. Manjaree Pandit)

B. M. M. M.
18/3/2023

Criterion 3: Students Performance (15)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
3.1.	Enrolment Ratio through GATE	20	<p>A. $\geq 80\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (20)</p> <p>B. $\geq 60\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (16)</p> <p>C. $\geq 50\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (12)</p> <p>D. $\geq 40\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (8)</p> <p>E. $\geq 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (6)</p> <p>E. $< 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (0)</p>	06	06	Overall Marks for 3.1 06	<p>CAY CAY_{m1} CAY_{m2} (2014-22) (2010-11) (2019-20)</p> <p>18 18 18 \leftarrow (CN)</p> <p>2 5 8 \leftarrow (CN)</p> <p>Mention Numbers 0.111 0.278 (0.444) \leftarrow (ER)</p> <p>Avg Enr. Ratio = 0.278 @ 28%</p>
3.2.	Success Rate in the stipulated period of the program	20	<p>S.I. = Number of students completing program in stipulated duration/ Number of students admitted in first year of same batch; Average S.I. = Mean of S.I. for the last 3 batches Assessment points = 20 X Average S.I.</p>	20	20	Overall Marks for 3.2 20	<p>LYG LYG_{m1} LYG_{m2} 18/18 17/17 15/14 = 20</p> <p>S.I. = 1.00, Evaluation = 20 X 5</p>
3.3.	Placement, Higher studies and Entrepreneurship	20	<p>Assessment Points = 20 x average placement, i.e., $(P1+P2+P3)/3$ Placement Index (P) = $[(x+y+z)/N]$; where, x = Number of students placed in companies or Government sector y = Number of students pursuing Ph.D. / JRF/ SRF z = No. of students turned entrepreneur in engineering/technology N = Total number of students admitted in first year</p>	14	14	Overall Marks for 3.3 14	<p>LYG LYG_{m1} LYG_{m2} 12 11 05 \leftarrow X</p> <p>03 01 03 \leftarrow Y</p> <p>0 0 0 \leftarrow Z</p> <p>15 12 8 \leftarrow X+Y+Z</p> <p>0.833 0.706 0.571 Avg Placement = 0.703</p>

M Pandic
18/3/2023

B Imbhar
18/3/2023

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
3.4.	Professional Activities	15					
3.4.1.	Student's participation in 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 Levels) (2)	2.5 1.5	04	Overall Marks for 3.4 11	Scope to improvement in quality & quantity.
3.4.2.	Student's publications	10	A. Quality & Relevance of the contents and Print Material (3) B. Participation of Students from the program (2) C. List the publications along with the names of the authors and publishers, etc.(5)	2 2 03	07		
Total of Criterion 3:		75	Overall Marks and Grade for Criterion 3:			51	

M/S
18/3/2023

18/3/2023

Criterion 4: Faculty Contributions (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
4.1.	Student-Faculty Ratio (SFR)	10	<p>• Marks to be given proportionally from a maximum of 10 to a minimum of 05 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>< = 15-10 Marks < = 17-09 Marks < = 19-08 Marks < = 21-07 Marks < = 23- 06 Marks < = 25-05 Marks >25.0-0 Marks</p> <p>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:</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 				<p>CAY CAYm CAYm₂</p> <p>129 114 110 ← 4.1 114 110 110 ← 4.2 110 110 113 ← 4.3 363 334 333 ← 4.4 18 18 18 ← 4.1 18 18 18 ← 4.2 36 36 36 ← 4.1 18 18 18 ← 4.1 18 18 18 ← 4.2 36 36 36 ← 4.2</p> <p>Overall Marks for 4.1</p>
				10	10	10	<p>425 406 405 ← Total F₁=32 F₂=29 F₃=32 13.28 14 12.67 ← SFR Avg SFR = 13.32 (Excluding FY faculty) Percentage of regular faculty is above 90%</p>
4.2.	Faculty competencies in the area of Program Specialization	30					
4.2.1.	Faculty competency in the domain area.	10		08			
4.2.2.	Faculty Research Publication	10		07			
4.2.3.	Faculty Development work	10		06			
4.3.	Faculty as participants in Faculty development /training activities /STTPs	5	Relevance of Training Program	4	4		<p>Overall Marks for 4.2. 21</p> <p>Overall Marks for 4.3. 4</p> <p>• Qualified faculty in domain • Scope to improve in IAR & development work. • Around 16 publications in assessment period • Good in number but mostly online. Total FDP attended Count = 142</p>

M. Pandic
18/3/2023

B. S. Mishra
18/3/2023

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.4.	Research and Development	30					
4.4.1.	Sponsored Research	15	Funded research from outside; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >50Lacs 15 Marks, Amount >40 and <50Lacs - 10 Marks, Amount >30 and <40Lacs - 5 Marks, Amount >15 and <30Lacs - 2 Marks, Amount < 15 Lacs - 0 Mark	10	10	Overall Marks for 4.4.	<p>Three AICTE projects, amounting to Rs 43.1 Lakh.</p> <p>Mention numbers</p> <p>Total consultancy amount is Rs 2.18 Lakh during assessment period by only one faculty.</p>
4.4.2.	Consultancy (From Industry)	15	Consultancy; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >10 Lacs 15 Marks, Amount <10 and > 8 Lacs 10 Marks, Amount < 8 and >6 Lacs 8 Marks, Amount < 6 and >4 Lacs 5 Marks, Amount < 4 and >2 Lacs 2 Marks, Amount <2 Lacs 0 Mark	2	2		
Total of Criterion 4:		75	Overall Marks and Grade for Criterion 4:			47	

M. Pandey
10/3/2023

B. D. Dhole
18/3/2023

Criterion 5: Laboratories and Research Facilities (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
5.1.	Adequate and well equipped laboratories in area of Program specialization	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20)	18	28	Overall Marks for 28.1	<ul style="list-style-type: none"> Labs are well-equipped but limited state of the art facilities Very good number of supportings
			B. Availability of adequate and qualified technical supporting staff (10)	10			
5.2.	Research facilities / center of excellence	30		20	20	Overall Marks for 20.2	Limited Research facilities
5.3.	Access to laboratory facilities, training in the use of equipment	15		11	11	Overall Marks for 11.3	Access to labs beyond working hours is limited.
Total of Criterion 5:		75	Overall Marks and Grade for Criterion 5:			59	

Criterion 6: Continuous Improvement (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
6.1.	Actions taken based on the results of evaluation of each of the POs	25	A. Documentary Evidence of POs attainment levels (10)	7	16	Overall Marks for 16.1	Limited efforts on gaps identification & action plan
			B. Identification of gaps/shortfalls (5)	3			
			C. Plan of action to bridge the gap and its Implementation (10)	6			
6.2.	Improvement in quality of projects	10		6	6	Overall Marks for 6.2	Limited improvement in quality of projects
6.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5)	3	5	Overall Marks for 5.3	<ul style="list-style-type: none"> Limited improvement in Placement & Higher studies. No Entrepreneurship
			B. Improvement in Higher Studies admissions for pursuing PhD. in premier institutions (3)	2			
			C. Improvement in number of Entrepreneurs (2)	00			
6.4.	Improvement in the quality of students admitted to the program	10	Assessment is based on improvement in terms of ranks/score in GATE examination	5	5	Overall Marks for 5.4	Seats are filled but quality of students is not improved
6.5.	Improvement in quality of paper publication	10		6	6	Overall Marks for 6.5	Limited improvement in quality of papers.
6.6.	Improvement in laboratories	10		6	6	Overall Marks for 6.6	Limited state of the art equipment
Total of Criterion 6:		75	Overall Marks and Grade for Criterion 6:			44	

M. Pandit
18/3/2023

Dr. Manjaree Pandit
Professor, Department of EE
MITS Gwalior

S. D. Dombhare
18/3/2023

Dr. Sanjay S. Dombhare
COEP Tech. University
PUNE

PART A**Evaluator's Visit Report****Postgraduate Engineering Program****Name of the Institution**

Government Engineering College,
Thrissur, Kerala - 680009

Name of the Program

PG - Computer Science & Engineering

Visit Dates

March 17-19, 2023.

NATIONAL BOARD OF ACCREDITATION

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

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

Banwani

P. Jayar
19.3.22

Program Evaluator Summary

Overview

The Expert team of National Board of Accreditation (NBA) conducted a three day accreditation visit from 17/3/ to 19/3/23 Graat Eng College, Thrissur to evaluate PG Engineering program Computer Science & Engg.

Pre visit meeting of the expert team was held on at 17/3/2023 8:00 AM 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 Bindu G R. The briefing on the institution was given by Dr Bindu G R and on the program was given by the Dr Shibi Joseph / Program Coordinator. 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 college is well established, good building infrastructure with classrooms & labs. They have highly qualified & experienced faculty with good cadre ratio. Quality of student projects and theory, lab assignments is satisfactory. OBE practices are adopted & implemented at institute level. However, quality of research publications need improvement. OBE practices to be further strengthened for quality improvement. The faculty need to have more industry intiation in the form of projects and lab development. The sponsored research projects and consultancy is a weak area.

Banwani

Fatees
19.3.22

Program Details

Name of the Program		M.Tech (Computer Sc. & Engg.)			
Year of Commencement	2011	PG- Computer Science & Engineering			
Student	Year	Sanctioned Intake	Actual Admitted		
	CAY (2021 - 2022)	18	18		
	CAY m1 (2020 - 2021)	18	18		
	CAY m2 (2019 - 2020)	18	18		
	Total Students in the Programme 1 st & 2 nd Year	36			
	Averaged for CAY, CAYm1 and CAYm2	18			
Faculty (Attach a Copy of faculty list compared with Time Table)	Regular		CAY(21-22)	CAYm1	CAYm2
		Professor	1	2	2
		Associate professor	7	7	7
	Contractual	Assistant professor	6	6	6
		Professor	0	0	0
		Associate professor	0	0	0
		Assistant professor	2	1	0
	No. of PhD. available in the dept.	5	6	3	
	Student - Faculty ratio averaged over CAY, CAYm1 and CAYm2	$CAY: SFR_1 = \frac{248}{18} = 13.78$, $CAYm1, SFR_2 = \frac{240}{18} = 13.33$ $SFR_3 = \frac{240}{18} = 13.33$, $Avg SFR = 13.48$			
	Name of the faculty with the domain specific qualification for the program under consideration (List attaches)	Professor	CAY	CAYm1	
Professor without PhD		0	2		
	Associate Professor	7	7		
Previous accreditation (if any)	First accreditation	No. of years accredited for	N.A.		
		With effect from	N.A.		
	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

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.

Anwar

Rajeev
19.3.22

Explicit observations about the program

(Please use additional sheets if necessary to elaborate)

Program title PG- Computer Science & Engineering

Strengths:

1. Good building & lab infrastructure to support teaching-learning & projects.
2. Good SFR, cadre ratio & retention
Modern syllabus with subjects on emerging
3. Technologies
Satisfactory placement record with improvement
4. in average pay package
Success rate of PG students is good
5. _____

Weakness/Areas of improvement:

1. Quality of theory & lab assignments, Test papers need improvement
2. Quality of project reports need improvement
3. Quality of projects can be improved with
4. industry association as well as emphasis on research
5. Syllabi of few subjects need substantial revision
6. Quality of research papers published by faculty
need major improvement
7. OBE practices need to be strengthened for overall qualitative improvement.

Samwani

Patel
19.3.22

Deficiencies:

1. No research projects by faculty
2. Limited consultancy projects
3. Research facilities need to be strengthened
4. Enrolment through GATE is decreasing
5.

Other Observations, if any:

1. faculty members should be encouraged to publish research papers in reputed
2. journals on regular basis
3.
4.
5.

Banwani

Petkar
19.5.22

EVALUATION CRITERIA

AWARD OF ACCREDITATION FOR THE PG ENGINEERING PROGRAMS

Accreditation for 6 years:

- i. Program should score greater than or equal to 375 with 60 per cent in each criteria.
- ii. Number of Ph.D. available 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. Faculty student ratio in the department under consideration 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).
- iv. At least two Professors or one professor and one associate professor on regular basis with a Ph.D. degree having expertise in the domain of the Program under consideration should be available for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).

Accreditation for 3 years:

- i. Program should score greater than or equal to 300 with 50 per cent in Criterion-IV (Faculty Contribution).
- ii. Corresponding UG Program should be accredited by NBA.
- iii. In case of Tier I, the corresponding UG Engineering program should have been granted with at least 3 Compliances (Y) for the SAR with 9 criteria and 4 Compliances (Y) for the SAR with 10 criteria or In case of Tier II, the corresponding UG Engineering program should have been granted with at least 650 marks out of 1000.
- iv. At least two Professors or one professor and one associate professor on regular basis with Ph.D. qualification with expertise in the domain of the Program under consideration should be available for two academic years i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- v. The department should have at least two faculty having Ph.D. qualification for two academic year i.e. Current Academic Year (CAY) and Current Academic Year Minus One (CAYM1).
- vi. Faculty Student Ratio in the department under consideration should be less than or equal to 1:25, averaged over three academic year i.e. Current Academic Year (CAY), Current Academic Year Minus One (CAYM1) and Current Academic Year Minus Two (CAYM2)

No Accreditation

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

Department/Programme Specific Criteria:

S. No.	Criteria	Max. Marks	Marks Awarded	Remarks
1.	Program Curriculum and Teaching-Learning Processes	125	81	
2.	Program Outcomes and Course Outcomes	75	51	
3.	Students' Performance	75	50	
4.	Faculty Contributions	75	38	
5.	Laboratories and Research Facilities	75	51	
6.	Continuous Improvement	75	48	
TOTAL		500	319	

S. Tanwani

Signature
(Program Evaluator 1)

COE S Tanwani,
SCSIT, DAVV
Indore.

P. J. J. J.
19.3.22

Signature
(Program Evaluator 2)

Declaration of Conformity with evaluator's report by the Team Chair

I agree with the observations of the program evaluators on each criterion.



Or

I agree with most of the observations of the program evaluators. However, I have following comments to make on certain criteria:

Criteria	Comments

Signature
(Chairperson)



Dr. S. MOHAN
Institute Chair Professor &
Professor of Civil Engineering
Environmental and Water Resources Engineering
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai - 600 036.

Criterion 2: Program Outcomes and Course Outcomes (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
2.1.	Establish the connect between the courses and the POs	15	A. Evidence of COs being defined for every course (3)	2	10	10 Overall Marks for 2.1	OBE practices, tools and processes adopted at Institute level.
			B. Availability of COs embedded in the syllabi (3)	2			
			C. Explanation of Course Articulation Matrix table to be ascertained (3)	2			
			D.Explanation of Program Articulation Matrix tables to be ascertained (6)	4			
2.2.	Attainment of Program Outcomes	60				Overall Marks for 2.2 41	OBE practices need to be strengthened for overall qualitative improvements.
2.2.1.	Describe the assessment tools and processes used to gather the data upon which the evaluation of Program Outcome is based	20	A. List of assessment tools & processes (10)	7	14		
			B. The quality/relevance of assessment tools/processes used (10)	7			
2.2.2.	POs attainment levels with observations	40	A. Verification of documents, results and level of attainment of each PO (30)	20	27		
			B. Overall levels of attainment (10)	7			
Total of Criterion 2:		75	Overall Marks and Grade for Criterion 2:			51	

Banwani

19.3.22

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
3.1.	Enrolment Ratio through GATE	20	<p>A. $\geq 80\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (20)</p> <p>B. $\geq 60\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (16)</p> <p>C. $\geq 50\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (12)</p> <p>D. $\geq 40\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (8)</p> <p>E. $\geq 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (6)</p> <p>F. $< 20\%$ students enrolled through GATE at the First Year Level on average basis during the last three years starting from current academic year (0)</p>	6	6	Overall Marks for 3.1 6	<p>CAY (21-22) $N = \text{Sanctioned Intake} = 18$ $N_1 = \text{admitted through GATE} = 9$ $ER_1 = 5.56$</p> <p>CAYM1 $N = 18, N_1 = 8$ $ER_2 = 44.44$</p> <p>CAYM2 $N = 18, N_1 = 10$ Mention Numbers $ER_3 = 55.56$ $\text{Avg ER} = 35.18$</p>
3.2.	Success Rate in the stipulated period of the program	20	<p>S.I. = Number of students completing program in stipulated duration/ Number of students admitted in first year of same batch; Average S.I. = Mean of S.I. for the last 3 batches Assessment points = $20 \times \text{Average S.I.}$</p>	19	19	Overall Marks for 3.2 19	<p>L99 (2021- Present): $X = 18, Y = 17, SI_1 = 0.94$</p> <p>L991: $X = 18, Y = 17, SI_2 = 0.94$ Mention Numbers</p> <p>L992: $X = 18, Y = 18, SI_3 = 1$ $\text{Avg SI} = 0.96$, Assessment Point = $20 \times 0.96 = 19.2$</p>
3.3.	Placement, Higher studies and Entrepreneurship	20	<p>Assessment Points = $20 \times \text{average placement, i.e., } (P_1 + P_2 + P_3)/3$ Placement Index (P) = $(x + y + z)/N$; where, x = Number of students placed in companies or Government sector y = Number of students pursuing Ph.D. / JRF/ SRF z = No. of students turned entrepreneur in engineering/technology N = Total number of students admitted in first year</p>	13.67	14	Overall Marks for 3.3 14	<p>CAY: $X = 13, Y = 0, Z = 0, N = 18$ (21-22) $PI_1 = \frac{X+Y+Z}{N} = 0.72$</p> <p>CAYM1: $X = 12, Y = 0, Z = 1$ Mention Numbers $PI_2 = 0.72$</p> <p>CAYM2: $X = 9, Y = 0, Z = 0, N = 18$ $PI_3 = 0.5$ $\text{Avg PI} = 0.683$ Assessment Point = $20 \times 0.683 = 13.67$</p>

Samvanti

19.3.22

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
3.4.	Professional Activities	15					
3.4.1.	Student's participation in Professional societies/chapters and organizing engineering events	5	A. Availability & activities of professional societies/chapters (3)	2	4	Overall Marks for 3.4	A. ISTE, IEEE, IEDC, Ross cell - Chapters present
			B. Number, quality of engineering events (organized at institute) Level- Institute/State/ National/ International Levels) (2)	2			B. Events: Around 50 (Avg) events, (5- State level, 2- National level), Good
3.4.2.	Student's publications	10	A. Quality & Relevance of the contents and Print Material (3)	1	7		A. Fair
			B. Participation of Students from the program (2)	2			B. Good
			C. List the publications along with the names of the authors and publishers, etc.(5)	4			C. Published papers in conference/Journal
Total of Criterion 3:		75	Overall Marks and Grade for Criterion 3:			11	

Sanwani

50 papers

*Paper
19.3.22*

Criterion 4: Faculty Contributions (75)

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
			<p>• Marks to be given proportionally from a maximum of 10 to a minimum of 05 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>< = 15-10 Marks < = 17-09 Marks < = 19-08 Marks < = 21-07 Marks < = 23- 06 Marks < = 25-05 Marks >25.0-0 Marks</p> <p>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</p>				<p>CAY 21-22 $\frac{212+36}{16} = 15.5$</p> <p>CAY 20-21 $\frac{204+36}{16} = 15$ m1</p> <p>CAY 19-20 $\frac{205+36}{15} = 16$ m2</p> <p>Avg SFR = 15.52</p>
4.1.	Student-Faculty Ratio (SFR)	10		9	9	Overall Marks for 4.1	
4.2.	Faculty competencies in the area of Program Specialization	30					
4.2.1.	Faculty competency in the domain area.	10		7			
4.2.2.	Faculty Research Publication	10		5			
4.2.3.	Faculty Development work	10		8			
4.3.	Faculty as participants in Faculty development /training activities /STTPs	5	Relevance of Training Program	4	4	Overall Marks for 4.3.	<p>① 5 Ph.D's in respective specialisations</p> <p>② Very few publications in SCI Journals Journal papers (15 or 7 SCI journals)</p> <p>Conference = 48</p> <p>③ Organised 01 - conference 02 - FDPs</p> <p>Attended CAY = 12 CAY m1 = 27 CAY m2 = 18</p>

Sanwani

Referee
19.3.22

S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total	Marks	
4.4.	Research and Development	30					
4.4.1.	Sponsored Research	15	Funded research from outside; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >50Lacs 15 Marks, Amount >40 and <50Lacs - 10 Marks, Amount >30 and <40Lacs - 5 Marks, Amount >15 and <30Lacs - 2 Marks, Amount < 15 Lacs - 0 Mark	0	0	Overall Marks for 4.4. 5	1. No Sponsored Research Projects in the name of faculty members. Claims are there but evidence is not produced.
4.4.2.	Consultancy (From Industry)	15	Consultancy; Cumulative for CAYm1, CAYm2 and CAY m3: Amount >10 Lacs 15 Marks, Amount <10 and > 8 Lacs 10 Marks, Amount < 8 and >6 Lacs 8 Marks, Amount < 6 and >4 Lacs 5 Marks, Amount < 4 and >2 Lacs 2 Marks, Amount <2 Lacs 0 Mark	5	5		Mention numbers 2. Consultancy claims are there but no sufficient evidence for all. However, Consultancy worth of total amount 4,35,922/- shown
Total of Criterion 4:		75	Overall Marks and Grade for Criterion 4:			38	

Sanwani

Referee
19.3.22

Criterion 5: Laboratories and Research Facilities (75)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
5.1.	Adequate and well equipped laboratories in area of Program specialization	30	A. Adequate well-equipped laboratories to run all the program-specific curriculum (20)	16	24	Overall Marks for 5.1 24	Adequate Lab infrastructure to support Teaching - Learning & Projects.
			B. Availability of adequate and qualified technical supporting staff (10)	8			
5.2.	Research facilities / center of excellence	30		15	15	Overall Marks for 5.2 15	Research facilities needs to be strengthened.
5.3.	Access to laboratory facilities, training in the use of equipment	15		12	12	Overall Marks for 5.3 12	—
Total of Criterion 5:		75	Overall Marks and Grade for Criterion 5:			51	
Criterion 6: Continuous Improvement (75)							
S.No.	Sub Criteria	Max. Marks	Evaluation Guidelines	Marks Awarded		Overall Marks	Observations of Evaluators (Provide Justifications/ Reasons)
				Marks	Total		
6.1.	Actions taken based on the results of evaluation of each of the POs	25	A. Documentary Evidence of POs attainment levels (10)	7	15	Overall Marks for 6.1 15	OBE practices need to be Strengthened.
			B. Identification of gaps/shortfalls (5)	3			
			C. Plan of action to bridge the gap and its Implementation (10)	5			
6.2.	Improvement in quality of projects	10		7	7	Overall Marks for 6.2 7	Needs more emphasis on research based projects.
6.3.	Improvement in Placement, Higher Studies and Entrepreneurship	10	A. Improvement in Placements numbers, quality, core hiring industry and pay packages (5)	3	5	Overall Marks for 6.3 5	Avg. pay packages has increased. Marginal improvement in placements. Limited evidence for students pursuing higher studies & entrepreneurship.
			B. Improvement in Higher Studies admissions for pursuing PhD. in premier Institutions (3)	1			
			C. Improvement in number of Entrepreneurs (2)	1			
6.4.	Improvement in the quality of students admitted to the program	10	Assessment is based on improvement in terms of ranks/score in GATE examination	5	5	Overall Marks for 6.4 5	No substantial improvement seen
6.5.	Improvement in quality of paper publication	10		8	8	Overall Marks for 6.5 8	Many Students have presented papers in Conferences and few in journals.
6.6.	Improvement in laboratories	10		8	8	Overall Marks for 6.6 8	Institute has recently procured latest configuration PCs/Laptops.
Total of Criterion 6:		75	Overall Marks and Grade for Criterion 6:			48	

Sanwani

Jape
19.3.22