



**APJ ABDUL KALAM  
TECHNOLOGICAL UNIVERSITY**

**ACADEMIC AUDIT MANUAL  
2025**



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## 1. INTRODUCTION

This document outlines the process of academic auditing designed to enhance the success of institutions, faculty, and students in the field of engineering education. It details the objectives of academic auditing, the auditing procedure, and the overall academic and disciplinary functioning of the institution. The document also highlights the roles and responsibilities of faculty members, research and consultancy activities, and the operation of class/course committees.

Academic audits will be conducted periodically at each affiliated college. The audits will be carried out jointly by the Internal Quality Assurance Cell (IQAC) of the college and external auditors appointed by the University. The IQAC is responsible for overseeing and monitoring all academic activities, including assessments, and for preparing academic audit reports for each semester. These reports will be reviewed by the external auditors, who will then conduct an independent audit based on these documents. The final audit report, in the prescribed format, will be submitted to the University.

To ensure the efficient functioning of the academic system and to quantify the efforts made by faculty and students, various assessment components have been established. These include evaluations of course delivery in accordance with the curriculum and syllabus of APJ Abdul Kalam Technological University (KTU), co-curricular and extra-curricular activities, and the academic functioning of the institution.

The academic auditing process aims to monitor and improve the quality of technical education by providing clear guidelines for both faculty and students. This ensures that institutions affiliated with KTU produce competent engineers and researchers who meet the standards of excellence expected in the field.

## 2. OBJECTIVES

- (i) To promote academic accountability and foster continuous improvement in technical education.
- (ii) To monitor and enhance the quality of technical education by providing clear and effective guidelines for teaching faculty and students, ensuring that institutions affiliated with APJ Abdul Kalam Technological University produce competent engineers and researchers.
- (iii) To uphold the core functions and standards of technical education.
- (iv) To evaluate the effectiveness of the teaching-learning process and establish methodologies that maximize the performance and outcomes of both faculty members and students.
- (v) To ensure the genuine and comprehensive implementation of Outcome-Based Education (OBE) across all affiliated institutions.
- (vi) To prepare institutions for achieving accreditation from the National Board of Accreditation (NBA) and improving their standing in the National Institutional Ranking Framework (NIRF) and Kerala Institutional Ranking Framework (KIRF).

Academic auditing will encompass the following key areas:

- (i) **Course Delivery and Evaluation:** Monitoring the delivery of courses, adherence to the course plan, syllabus coverage, quality of question papers for internal assessments, internal evaluation processes, maintenance of laboratory equipment and experimental setups, practical assignments, mini-projects, and the conduct and evaluation of practical classes.
- (ii) **Co-curricular and Extra-curricular Activities:** Assessing the availability and effectiveness of co-curricular and extra-curricular activities for students.



(iii) **Academic Functioning of the Institution:** Evaluating the academic functioning of the college, academic environment, learning ecosystem, academic achievements, and benchmarking against best practices.

(iv) **Quality Standards:** Ensuring compliance with quality criteria prescribed by accreditation bodies like NBA and NAAC.

(v) **Performance Metrics:** Evaluating alignment with quality benchmarks set by national and institutional ranking frameworks, such as NIRF and KIRF.

### 3. STRUCTURE AND FUNCTIONING OF THE ACADEMIC AUDITING SYSTEM

The Academic Auditing System comprises two primary bodies: the **Internal Quality Assurance Cell (IQAC)** at the institutional level and the **External Auditors** appointed by the University. The IQAC assists the External Auditors in conducting audits and implementing quality enhancement measures.

#### 3.1 Internal Quality Assurance Cell (IQAC)

The IQAC is integral to the institution, ensuring continuous quality enhancement and sustenance. Its motto is to achieve quality through ongoing improvement with active collaboration among stakeholders. The IQAC serves to streamline and systematize the University's efforts toward academic excellence.

#### Functions of IQAC

- **Academic Audit and Feedback:** Leading internal academic audits and providing constructive feedback to devise quality enhancement programs.
- **Learner-Centric Environment:** Promoting a conducive environment for quality education and fostering faculty development to adopt innovative teaching-learning practices.
- **Stakeholder Feedback:** Organizing mechanisms to collect feedback from students, parents, and other stakeholders on quality-related institutional processes.
- **Quality Dissemination:** Sharing information on quality parameters in higher education to guide institutional practices.

#### Composition of IQAC

- **Chairperson:** Head of the Institution
- **Teacher Representatives:** 3 to 8 teachers representing all levels, with the senior-most serving as the coordinator/director
- **Management Representative:** One member
- **Senior Administrative Officer:** One member
- **Nominees:** One each from the local society, students, alumni, industry, and a professional body

**Membership Tenure:** Nominated members will serve a term of two years.

**Meeting Frequency:** The IQAC must meet at least once per quarter, with a quorum of two-thirds of the total members.

**Documentation:** Agendas, minutes, and action-taken reports must be officially signed and electronically maintained for easy retrieval.

#### Responsibilities

- IQAC members must actively promote quality awareness within the institution and work on procedural improvements.
- Institutions should prepare and maintain a **Quality Assurance Report (QAR)** on a quarterly basis for future reference.



- The IQAC should establish a dedicated tab on the institutional website to host records, including academic auditing data, accreditation reports, QARs, and certification outcomes, with regular updates on its activities.

### 3.2 External Auditors

External Auditors, appointed by the University, will typically be senior academicians such as Professors or Associate Professors from the affiliated colleges of the University.

#### Responsibilities

- Visit the assigned institutions twice annually, as scheduled by the University.
- Verify records and interact with faculty, staff, and students during their visits.
- Submit an online report through the University portal, accessible to the respective institution.
- The Principal must provide responses to the auditors' observations within two weeks of the report submission.

### 3.3 Audit Procedure and Frequency of Audits

- **Preparation:** The Principal ensures that records/documents listed in section 5.0 are maintained and accessible to both the IQAC and External Auditors. The **data over the past three years** should be made available to the external auditor for verification.
- **Internal Audit:** The IQAC conducts inter-departmental audits **once per semester**. A team of two IQAC members, designated by the Principal/ coordinator, will audit each department. The internal audit report, along with all supporting documents, shall be submitted to the External Auditors. The institution shall maintain a internal audit report, containing details and supporting evidence for each criterion of the Academic Audit Manual. This will facilitate a smoother external audit process.
- **External Audit:** External Auditors will visit the institution to verify documentation, interact with stakeholders, and submit an online report for the institution and each program audited. The external audit is typically conducted once per academic year, preferably during the even semester. However, the University reserves the right to conduct additional audits at any institution, as deemed necessary, based on specific circumstances or institutional requirements.
- **Number of external auditors:** Each external audit team shall consist of at least two members. However, if the total student strength of a college is very low (e.g., fewer than 100 students), the University may constitute a single-member audit team.
- **Duration of external audit:** The external audit shall span a minimum of two days—one day for institution-level audit and one or more days for department-level audits. The colleges shall make arrangements for the hospitality, stay and local transportation of the audit team.

## 4. RATING

Each institution and its programmes will be rated based on the following criteria.

### 4.1 Rating levels of various Criteria.

Each criterion is evaluated on a scale of **0 to 10**. A specific weight is assigned to each criterion, and the institution's total score is calculated by multiplying the score obtained for each criterion by its respective weight. The weights and scores for all criteria are detailed in the following section.

### 4.2 Rating of an Institution

The weighted score for each parameter is calculated by multiplying the score obtained in the rating by its assigned weight.



The sample institutional rating below illustrates a scenario in which the institution secures a score of **10** in all evaluated parameters. The maximum possible score for an institution is **400**, achievable only if a score of **10** is attained in every criterion.

No	Parameter	Score		
		Weight	Score*	Weighted Score (Score × Weight)
<b>7.1.1</b>	<b>Teaching, Learning &amp; Resources (TLR)</b>			
7.1.1.1	Admission percentage over the last three years	3	10	30
7.1.1.2	Faculty-Student Ratio (FSR)	2	10	20
7.1.1.3	Faculty Qualification Index (FQI)	2	10	20
7.1.1.4	Faculty Cadre Ratio	2	10	20
7.1.1.5	Faculty Retention	0.5	10	5
7.1.1.6	Financial Resources Utilization	0.5	10	5
				<b>100</b>
<b>7.1.2</b>	<b>Research Footprint/Consultancy/Startups (RFCS)</b>			
7.1.2.1	Research Productivity: Journal Publications	3	10	30
7.1.2.2	Research Productivity: Conference Publications	0.5	10	5
7.1.2.3	Research Impact: RI	1	10	10
7.1.2.4	Intellectual Property Rights (IPR)	0.5	10	5
7.1.2.5	Sponsored Research/Consultancy	0.5	10	5
7.1.2.6	Startups	0.5	10	5
				<b>60</b>
<b>7.1.3</b>	<b>Graduation Outcome (GO)</b>			
7.1.3.1	Pass percentage over the last three years	3.5	10	35
7.1.3.2	Placement and higher studies percentage for the last three years	2.5	10	25
7.1.3.3	Number of PhD students graduated	0.5	10	5
				<b>65</b>
<b>7.1.4</b>	<b>Outreach and Inclusivity (OI)</b>			
7.1.4.1	Facilities for Differently Abled (FDA)	1	10	10
7.1.4.2	Social Inclusiveness (SI)	2	10	20
7.1.4.3	Pay and Allowances	1	10	10
				<b>40</b>
<b>7.1.5</b>	<b>Safety, Scientific Temper and Adoption of Green Technologies</b>			
7.1.5.1	Safety Measures	0.5	10	5
7.1.5.2	Adoption of Green Technologies	1	10	10
7.1.5.3	Imparting Scientific Temper and Secular Outlook	1	10	10
				<b>25</b>



<b>7.1.6</b>	<b>Ranking and Accreditation</b>			
7.1.6.1	NBA accreditation	3.5	10	35
7.1.6.2	Ranking	2	10	20
				<b>55</b>
<b>7.1.7</b>	<b>Infrastructure Adequacy (IA)</b>			
7.1.7.1	Class Rooms & Tutorial rooms	1	10	10
7.1.7.2	Laboratories	1	10	10
7.1.7.3	Computer Centre	0.5	10	5
7.1.7.4	Library	0.5	10	5
7.1.7.5	Administrative Area & Faculty Rooms	0.5	10	5
				<b>35</b>
<b>7.1.8</b>	<b>Transformation Efforts (TE)</b>			
7.1.8.1	Academic performance of students with low entrance ranks	1	10	10
7.1.8.2	Placement and Higher Studies	1	10	10
				<b>20</b>
	<b>Total Score</b>			<b>400</b>

**Total marks for the institution-level criteria: 400**

\*This example assumes an institution achieves the maximum score of 10 across every criterion.

The institution's overall rating is determined based on the percentage of total marks obtained:

- **EXCELLENT:** 90% and above (Total marks: 360 or above)
- **VERY GOOD:** 80% and above (Total marks: 320 and above)
- **GOOD:** 60% and above (Total marks: 240 and above)
- **FAIR:** 40% and above (Total marks: 160 and above)
- **POOR:** 20% and above (Total marks: 80 and above)
- **VERY POOR:** Below 20% (Total marks < 80)

#### 4.3 Rating of a Program

The weighted score for each parameter is calculated by multiplying its assigned weight by the score obtained from the rating. The sample program rating below illustrates a case where the program achieves the maximum score across all evaluated parameters. The highest possible total score for a program is 300, assuming full marks are obtained in every criterion.



Sl. No	Parameter	Weight		Total Score=Score * Weight
		Weight	Score*	
1	Admission percentage over the last three years:	3	10	30
2	Faculty-Student Ratio (FSR)	2	10	20
3	Faculty Qualification Index (FQI)	2	10	20
4	Faculty Cadre Ratio (FCR)	2	10	20
5	Research Productivity: Journal Publications	2	10	20
6	Research Productivity: Conference Publications	0.5	10	5
7	Pass percentage over the last three years	3	10	30
8	Placement and higher studies percentage for the last three years	2	10	20
9	Number of qualified technical staff	1	10	10
10	Faculty as Resource Persons or Participant in STTPs/FDPs	1	10	10
11	Faculty Contribution in Development of SWAYAM MOOCs and other E-Content	0.5	10	5
12	Faculty Certification of MOOCs through SWAYAM, etc.	1	10	10
13	FDP/STTP Organized by the Department	1	10	10
14	Syllabus coverage as per course plan	1	10	10
15	Evaluation of Continuous Assessment: Assignments, Series tests etc.	0.5	10	5
16	Maintenance of A, B, C, and D Files	1	10	10
17	Computing facility in the department:	0.5	10	5
18	Assessment of Outcomes	1	10	10
19	Maintenance of Course Diary	0.5	10	5
20	Professional Societies/Chapters, Extracurricular, and Co-curricular Activities	1.5	10	15
21	NBA accreditation	3	10	30



	<b>Total Marks</b>		<b>300</b>
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\* Maximum score for each criterion is used in this illustration.

**Total marks for program-wise criteria = 300**

The overall rating of the program is determined based on the percentage of total marks obtained:

The total marks will be rounded to the nearest integer.

- **EXCELLENT:** 90% and above (Total marks: 270 and above)
- **VERY GOOD:** 80% and above (Total marks: 240 and above)
- **GOOD:** 60% and above (Total marks: 180 and above)
- **FAIR:** 40% and above (Total marks: 120 and above)
- **POOR:** 20% and above (Total marks: 60 and above)
- **VERY POOR:** below 20% (Total marks < 60)

## 5. DOCUMENTS TO BE SUBMITTED FOR AUDIT

Each affiliated institution must maintain the following records in soft, hard, or blended formats as per their practice and convenience. These documents should be made available to external auditors during the academic audit. **Additionally, any other relevant documents requested by the auditors must also be provided by the college.**

### 5.1 College-Specific Documents

The college is required to maintain files for the following documents to facilitate verification by auditors.

Sl.No	Criteria	Document to be verified
1	Admission percentage over the last three years	List of students, seats filled and ranks (last 3 years data)
2	Faculty-Student Ratio (FSR), Faculty Qualification Index (FQI), Faculty Cadre Ratio, Faculty Retention, Number of qualified technical staff, Pay and allowances	Details of faculty student ratio for the last 3 years. Faculty list with designation, qualification, joining date, acquittance roll, IT Returns of Faculty
3	Financial Resources Utilization	Institution budget and allocation details, Audited statements.
4	Research Productivity, Research Impact	Faculty list with designation, qualification, date of joining, and publications. Indexing and citations received for each publication, along with supporting documents (publications, proof of indexing in



		WoS/SCOPUS, Google Scholar, etc.). WoS, SCOPUS and Google Scholar profiles of faculty members.
5	Intellectual Property Rights	List of patents and Proof
6	Sponsored Research/Consultancy	List of sponsored/funded research projects/consultancy by program faculty along with proof
7	Startups	List of start-ups, documents proving registration
8	Pass percentage within the stipulated minimum period	Result file/ KTU portal etc.
9	Placement and higher studies percentage for the last three years	Placement file containing list of students, Appointment letter/Offer letter, Proof of GATE/GRE/UGC/NET/JRF/CSIR, Proof of admission to higher studies Documents mentioned in 7.1.3.2
10	Number of PhD students graduated over the last three years	Proof of PhD Registration with documents proving the institution as research centre, PhD Degree/Provisional certificate/ Documents proving thesis submission.
11	Facilities for Differently Abled (FDA)	Physical verification
12	Social Inclusiveness (SI)	List of students and staff by category (SC/ST/OBC/Women/Differently Abled/EWS/Transgender, etc.), certified by the Principal
13	Safety Measures	Documentary evidence + random Physical verification
14	Adoption of green technologies	Documentary evidence + Random Physical verification
15	Imparting Scientific Temper and Secular Outlook	Documents in support of parameters specified in section 7.1.5.3
16	Accreditation and Ranking	Documents proving accreditation and ranking
17	Infrastructure Adequacy	Physical verification of classroom, laboratories etc, building plan, Registers of book volumes, titles, journals, etc, stock register for software and hardware facilities of computer centre and laboratories.
18	Transformation efforts	Documents proving academic performance and placement of students with low entrance ranks. Documents proving support



		programs conducted such as remedial teaching and mentoring.
19	IQAC functioning and Other Compliance Parameters	IQAC Reports, Principals Response to previous audit, IQAC Minutes book etc. Documents in proof of BTech 2024 as per Section 7.1.9

**Note:** The college shall provide any additional documents requested by the auditors for the evaluation of various parameters.

## 5.2 Department-Specific Documents

### A1 – Academic Files

- **Timetable:** With tutorials, arranged hierarchically.
- **Internal Exam Question Papers:** Approved by DQAC.
- **Innovative Teaching Approaches:** Examples and implementation details.
- **Tutorial Records:** Samples and corresponding logbooks.
- **Student-Faculty Ratio (SFR):** Computation as per NBA guidelines for the last three years.

### A2 – Academic Files

- **Course Files:** Complete records for the last three years.

### A3 – Academic Files

- **CO-PO and CO-PSO Mapping:** Evidence of mapping and achievement.
- **Attainment Metrics:** PO and PSO attainment details.
- **Curriculum Gap Analysis:** Identified gaps and actions taken to address POs and PSOs.
- **Project Details:**
  - List of projects, guides, and student groups.
  - Panels, rubrics, and evaluation marks.
  - PO and PSO attainment metrics.
- **Subject Group Records:** Faculty allocations, meeting minutes, and activities organized.
- **Add-On Courses:** Details and outcomes.

### B – Staff Files

- **Research Funding:** Internal and external sources.
- **Consultancy:** Engagements and outcomes.
- **Collaborative Works/Research:** Details and results.
- **Publications:** Journals (SCIE, SSCI, SCOPUS,AHCI), conferences, books, chapters, articles, etc.
- **Intellectual Property Rights (IPR):** Patents and related activities.
- **MoUs:** Signed agreements.
- **Faculty Development Programs (FDPs):**
  - Attended (within and outside the institution).



- Organized events.
- **Awards and Honors:** Achievements by faculty.
- **Faculty contribution in MOOC and e-content:** MOOC and e-content details developed by faculty members
- **External Interactions:** Collaboration details.

#### C – Student Files

- **Roll Lists:** For the past three years.
- **Results Analysis:** Semester-wise performance reports.
- **Success Data:** Metrics for last three passed-out batches.
- **Placement Records:** Proof from the previous three academic years.
- **Higher Studies Records:** Proof from the previous three academic years.
- **Career/Skill Development Programs:** Conducted for students.
- **Achievements:** Academic and extracurricular.
- **Entrepreneurship/Startups:** Student-led ventures during the past 3 years.
- **Professional Society Activities:** Events and participation.

#### D – Miscellaneous Files

- **Staff Extension Activities:** Records of outreach programs.
- **Staff Duties and Responsibilities:** Assignment details.
- **Staff and Guest faculty Appointments:** Semester-wise documentation.
- **Guest Faculty Acquaintance:** Details of guest faculty engagement.
- **Department Budget:** Financial records and utilization.

#### Additional Documents

- **Course/Class Committee Records:** Minutes and action taken reports for UG/PG programs.
- **Advisory Meeting Records:** Minutes and actions taken.
- **Course Diaries:** For all courses taught.
- **Laboratory Records:** Equipment logs and maintenance details.
- **Practical Course Assessment:** Question papers and sample answer scripts.
- **Faculty Evaluation Records:** Evaluation results and actions taken.
- **Activity Points Register:** Tracking student activity points.
- **MOOC Records:** Courses completed by UG/PG students and faculty.
- **Computing Facility Details:** Specifications and usage for UG/PG labs.
- **Licensed Software Records:** Details of relevant software available.
- **FDP/STTP Organized by the Department:** Details of FDP/STTPs organized by the department

**Note:** The college shall also submit any other relevant documents not listed above if requested by the



auditors for the evaluation of various parameters.

## 6. ASSESSMENT OF VARIOUS OUTCOMES

The course files shall include CO and PO attainment calculation as per the NBA accreditation guidelines.

## 7. PARAMETERS AND EVALUATION CRITERIA

### 7.1 Institution-Level Assessment

The institution shall maintain a file for each of the following criteria, along with supporting documents for verification.

#### 7.1.1: Teaching, Learning & Resources (TLR)

Sl.No	Parameter	Criteria and Marking Guide
7.1.1.1	Admission Percentage over the Last Three Years	<p>Percentage based on the college's intake and actual admissions (considering all PG and UG programmes).</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• 91–100% → 10 marks</li> <li>• 81–90% → 8 marks</li> <li>• 61–80% → 6 marks</li> <li>• 41–60% → 4 marks</li> <li>• 21–40% → 2 marks</li> <li>• &lt;21% → 0 marks</li> </ul>
7.1.1.2	Faculty-Student Ratio (FSR)	<p>The average student-to-faculty ratio index is calculated as <math>\{20 \times \text{Total number of faculty}\} \div \{\text{Total sanctioned student intake for all programmes}\}</math>. Marks are awarded according to the obtained value.</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• <math>\text{FSR} \geq 1 \rightarrow 10</math> marks</li> <li>• <math>\text{FSR} \geq 0.9 \rightarrow 8</math> marks</li> <li>• <math>\text{FSR} \geq 0.75 \rightarrow 6</math> marks</li> <li>• <math>\text{FSR} \geq 0.6 \rightarrow 4</math> marks</li> <li>• <math>\text{FSR} \geq 0.5 \rightarrow 2</math> marks</li> <li>• <math>\text{FSR} &lt; 0.5 \rightarrow 0</math> marks</li> </ul> <p>If a college has 5 UG programmes and 2 PG programmes with sanctioned strength as follows:</p> <ul style="list-style-type: none"> <li>• UG1 – 60 (2015-16, 2016-17, 2017-18, 2018-19)</li> <li>• UG2 – 60 (2015-16, 2016-17, 2017-18), 45 (2018-19)</li> <li>• UG3 – 60 (2015-16, 2016-17, 2017-18, 2018-19)</li> <li>• UG4 – 60 (2015-16, 2016-17, 2017-18, 2018-19)</li> <li>• UG5 – 60 (2015-16, 2016-17, 2017-18), 30 (2018-19)</li> <li>• PG1 – 24 (2017-18), 18 (2018-19)</li> <li>• PG2 – 24 (2017-18), 0 (2018-19)</li> </ul> <p>Total sanctioned strength = <math>60 \times 4 + 60 \times 3 + 45 \times 1 + 60 \times 4 + 60 \times 4 + 60 \times 3 + 30 \times 1 + 24 + 18 + 24 + 0 = 1221</math>.</p> <p>With 47 regular faculty, the ratio = <math>20 \times 47 \div 1221 = 0.77 \rightarrow 6</math></p>



		<p>marks. Record the FSR value and actual strength in the Remarks column.</p> <p>Note: If the Principal handles at least 4 hours of academic workload, he/she can be included in FSR calculations.</p>
7.1.1.3	Faculty Qualification Index (FQI)	<p><math>FQI = (10X + 4Y)/F</math>, where X = number of regular faculty with Ph.D., Y = number with PG, F = number of faculty required for a 1:20 ratio. The average of the last 3 years is to be considered.</p> <p>Principal Requirements (AICTE 7th PRC): Ph.D., First Class at Bachelor's/Master's level, guided 2 Ph.D.s, 8 research publications, 15 years' experience with 3 as Professor, verified documents.</p> <p>Faculty Requirements (AICTE): Faculty must have qualifications as defined by AICTE. Faculty with only a Bachelor's degree are excluded from FQI.</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• <math>FQI \geq 7</math> &amp; Principal fully eligible → 10 marks</li> <li>• <math>FQI \geq 6</math> &amp; Principal fully eligible → 8 marks</li> <li>• <math>FQI \geq 6</math> &amp; Principal academically eligible only → 6 marks</li> <li>• <math>4.5 \leq FQI &lt; 6</math> → 4 marks</li> <li>• <math>FQI &lt; 4.5</math> → 0 marks</li> </ul> <p>Note: If the Principal handles <math>\geq 4</math> hours academic workload, he/she can be included in FQI.</p>
7.1.1.4	Faculty Cadre Ratio (FCR) over the last three years	<p>The average of the last 3 years is to be considered.</p> <p>Classification of Faculty: For computation, a faculty member is classified as Professor (F1) or Associate Professor (F2) only if they hold a PhD degree.</p> <p>Formula for Faculty Cadre Ratio Score (FCRS):  <math>FCRS = [(AF1/RF1) + 0.6 \times (AF2/RF2) + 0.4 \times (AF3/RF3)] \times 12.5</math>  Where:  <ul style="list-style-type: none"> <li>• AF1, AF2, AF3 = Actual faculty in Professor, Associate Professor, and Assistant Professor categories.</li> <li>• RF1, RF2, RF3 = Required faculty in Professor, Associate Professor, and Assistant Professor categories.</li> </ul> <p>Required Faculty Proportions (RF) based on AICTE guidelines (for required faculty R):  <ul style="list-style-type: none"> <li>• <math>RF1 = (1/9) \times R</math> → Professors</li> <li>• <math>RF2 = (2/9) \times R</math> → Associate Professors</li> <li>• <math>RF3 = (6/9) \times R</math> → Assistant Professors</li> </ul> where R = Total faculty required (for 20:1 SFR).</p> <p>Special Cases:  <ul style="list-style-type: none"> <li>• If <math>AF1 = 0</math> and <math>AF2 = 0</math>, then <math>FCRS = 0</math>.</li> <li>• Maximum FCRS is capped at 25.</li> </ul> <p>Worked Example:  Intake = 45 (Total students = 180 → Required Faculty R = 9)</p> </p></p>



		<p>RF1 = 1, RF2 = 2, RF3 = 6</p> <ul style="list-style-type: none"> <li>• Case 1: AF1=1, AF2=2, AF3=6 → FCRS = 25.0 → 10 marks</li> <li>• Case 2: AF1=1, AF2=3, AF3=5 → FCRS = 27.92 → capped at 25.0 → 10 marks</li> <li>• Case 3: AF1=0, AF2=1, AF3=8 → FCRS = 10.42 → 4 marks</li> </ul> <p>Marks based on FCRS:</p> <ul style="list-style-type: none"> <li>• FCRS ≥ 22 → 10 marks</li> <li>• 16 ≤ FCRS &lt; 22 → 8 marks</li> <li>• 12 ≤ FCRS &lt; 16 → 6 marks</li> <li>• 9 ≤ FCRS &lt; 12 → 4 marks</li> <li>• FCRS &lt; 9 → 2 marks</li> </ul> <p>Note: If the Principal handles at least 4 hours of academic workload for a department, he/she can be included in the FCR calculation.</p>																				
7.1.1.5	Faculty Retention (Last 3 Years)	<p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• Retention ≥90% → 10 marks</li> <li>• Retention ≥75% → 8 marks</li> <li>• Retention ≥60% → 6 marks</li> <li>• Retention ≥50% → 4 marks</li> <li>• Retention &lt;50% → 2 marks</li> </ul> <p>Example:</p> <table border="1"> <thead> <tr> <th>Item</th> <th>CAY</th> <th>CAYm 1</th> <th>CAYm 2</th> </tr> </thead> <tbody> <tr> <td>No of Faculty Retained</td> <td>29</td> <td>28</td> <td>30</td> </tr> <tr> <td>Total No. of Required Faculty</td> <td>33</td> <td>33</td> <td>33</td> </tr> <tr> <td>% of Faculty Retained</td> <td>88</td> <td>85</td> <td>Not applicable</td> </tr> <tr> <td>% of Faculty Retained &amp; marks</td> <td colspan="3">86.5% (88+85)/2=8 marks</td> </tr> </tbody> </table> <p>Note: Retention counts if a faculty member is replaced by another of same/higher cadre, maintaining ratios.</p>	Item	CAY	CAYm 1	CAYm 2	No of Faculty Retained	29	28	30	Total No. of Required Faculty	33	33	33	% of Faculty Retained	88	85	Not applicable	% of Faculty Retained & marks	86.5% (88+85)/2=8 marks		
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7.1.1.6	Financial Resource Utilization (Last 3 Years)	<p>The annual budgets of the past three FYs are to be made available to the auditors. There should be sufficient budgetary allocation. Marks are based on 6 subcomponents:</p> <ol style="list-style-type: none"> <li>1. Salaries/operational expenses (≥6th AICTE PRC, labs, software, maintenance).</li> <li>2. Labs/library/infrastructure upgrades (excludes hostels/buildings).</li> <li>3. Conferences, R&amp;D, training, placement.</li> <li>4. Outreach activities, training and placement, industry linkages etc.</li> <li>5. Sustainable Development Goals (SDGs)</li> </ol>																				



		<p>Marking Criteria:</p> <p>All 5 + 5% annual budget increase: 10 marks</p> <p>All 5: 8 marks</p> <p>Any 4 components: 6 marks</p> <p>Any 3 components: 4 marks</p> <p>1 only: 2 marks</p> <p>None: 0 marks</p>
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### 7.1.2. Research Footprint/Consultancy/Startups (RFCS)

Each department must maintain separate files for the following criteria, which will be compiled to determine the institution-level rating

Sl. No.	Parameter	Criteria and Marking Guide
7.1.2.1	Research Productivity: Journal Publications (Cumulative for the last 3 years)	<p>Only SCIE/SCOPUS/ESCI/SSCI/AHCI indexed journals will be counted.</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• Publications <math>\geq 3 \times</math> (Number of Departments): 10 marks</li> <li>• Publications <math>\geq 2 \times</math> (Number of Departments): 8 marks</li> <li>• Publications <math>\geq 1 \times</math> (Number of Departments): 6 marks</li> <li>• Publications <math>\geq 0.5 \times</math> (Number of Departments): 4 marks</li> <li>• Publications <math>&lt; 0.5 \times</math> (Number of Departments): 2 marks</li> <li>• No Publications: 0 marks</li> </ul>
7.1.2.2	Research Productivity: Conference Publications, Book Chapters (Cumulative for the last 3 years)	<p>Only publications indexed in Web of Science or SCOPUS will be considered.</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• Publications <math>\geq 5 \times</math> (Number of Departments): 10 marks</li> <li>• Publications <math>\geq 4 \times</math> (Number of Departments): 8 marks</li> <li>• Publications <math>\geq 3 \times</math> (Number of Departments): 6 marks</li> <li>• Publications <math>\geq 2 \times</math> (Number of Departments): 4 marks</li> <li>• Publications <math>&lt; 2 \times</math> (Number of Departments): 2 marks</li> <li>• No Publications: 0 marks</li> </ul>
7.1.2.3	Research Impact (RI)	<p>The research impact shall be assessed based on the cumulative total number of citations received for the publications of the institution's faculty members, as recorded in Google Scholar to date.</p> <ul style="list-style-type: none"> <li>• Number of citations <math>\geq 1000</math> : 10 marks</li> <li>• Number of citations <math>\geq 700</math> : 8 marks</li> <li>• Number of citations <math>\geq 500</math> : 6 marks</li> <li>• Number of citations <math>\geq 250</math> : 4 marks</li> <li>• Number of citations <math>\geq 100</math> : 2 marks</li> <li>• Number of citations <math>&lt; 100</math> : 0 marks</li> </ul>
7.1.2.4	Intellectual Property Rights (IPR) (Cumulative for the last 3 years)	<ul style="list-style-type: none"> <li>• Number of Patents awarded <math>\geq 5</math>: 10 marks</li> <li>• Number of Patents awarded <math>\geq 3</math>: 8 marks</li> <li>• Number of Patents awarded <math>\geq 1</math>: 5 marks</li> <li>• Number of Patent applications published <math>\geq 4</math>: 4 marks</li> <li>• Number of Patent applications published <math>\geq 1</math>: 2 marks</li> <li>• No Patent: 0 marks</li> </ul>



7.1.2.5	Sponsored Research/Consultancy (Cumulative for the last 3 years)	<ul style="list-style-type: none"> <li>• Amount <math>\geq</math> 20 Lakh: 10 marks</li> <li>• Amount <math>\geq</math> 12 Lakh and <math>&lt;</math> 20 Lakh: 8 marks</li> <li>• Amount <math>\geq</math> 8 Lakh and <math>&lt;</math> 12 Lakh: 6 marks</li> <li>• Amount <math>\geq</math> 2 Lakh and <math>&lt;</math> 8 Lakh: 4 marks</li> <li>• Amount <math>\geq</math> 1 Lakh and <math>&lt;</math> 2 Lakh: 2 marks</li> <li>• Amount <math>\geq</math> 0.5 Lakh and <math>&lt;</math> 1 Lakh: 1 mark</li> <li>• Amount <math>&lt;</math> 0.5 Lakh: 0 marks</li> </ul> <p>Note: The amount is cumulative for all sponsored research/consultancy projects.</p>
7.1.2.6	Startups (Cumulative for the last 3 years)	<p>The rating will be based on the total number of start-ups established during the past 3 years:</p> <ul style="list-style-type: none"> <li>• 3 or more start-ups: 10 marks</li> <li>• 2 start-ups: 8 marks</li> <li>• 1 start-ups: 4 marks</li> <li>• No start-ups: 0 marks</li> </ul>

### 7.1.3: Graduation Outcome (GO)

Each department has to maintain separate files for the following criteria which will be compiled for institution level rating.

Sl. No.	Parameter	Criteria and Marking Guide
7.1.3.1	Pass percentage over the last three years (pass in minimum stipulated time of 4 years only will be considered)	<p>81 - 100%: 10 marks 71 - 80%: 8 marks 61 - 70%: 6 marks 51 - 60%: 4 marks 31 - 50%: 2 marks &lt; 31%: 0 marks</p> <ul style="list-style-type: none"> <li>• The average pass percentage of the last three academic years shall be taken for evaluation.</li> <li>• Only institutions with an average admission (intake) of at least 40% over the past three batches, for which results are considered, will be eligible for scoring.</li> <li>• Institutions not meeting this minimum admission criterion shall automatically receive 0 marks.</li> </ul>
7.1.3.2	Placement and higher studies percentage for the last three years	<p>Based on the number of students of the institution securing placements, higher studies, and exam success (GATE/GRE/UGC/NET/JRF/CSIR) during the last three years. The average of the last three years is to be considered:</p> <p>81 - 100%: 10 marks 61 - 80%: 8 marks 41 - 60%: 6 marks 31 - 40%: 4 marks 21 - 30%: 2 marks &lt; 21%: 0 marks</p> <p>Placement and Higher Education Validation Criteria:</p> <p>1. Minimum Annual Pay Package for Placement:</p>



		<ul style="list-style-type: none"> <li>• Placements will only be considered valid if the annual pay package is at least ₹2.4 lakhs per annum.</li> </ul> <p>2. Placement Validation:</p> <ul style="list-style-type: none"> <li>• Current Graduates: For students graduating in the current year, job offer letters from recruiting companies will be accepted as proof of placement, as joining dates are often announced at a later stage.</li> <li>• Senior Students: For alumni or students who have already graduated, appointment letters must be submitted as evidence of placement.</li> </ul> <p>3. Proof of Admission for Higher Studies:</p> <ul style="list-style-type: none"> <li>• Students pursuing higher education must provide valid admission proof (e.g., admission letter or enrollment confirmation).</li> </ul> <p>4. Verification of National Level Examination Qualification:</p> <ul style="list-style-type: none"> <li>• For students qualifying through national-level examinations, submission of a valid score card is required.</li> <li>• Only institutions with an average admission (intake) of at least 30% over the past three batches, for which placements are considered, will be eligible for scoring.</li> <li>• Institutions not meeting this minimum admission criterion shall automatically receive 0 marks.</li> </ul>
7.1.3.3	Number of PhD students graduated over the last three years	<p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• ≥ 3 students: 10 marks</li> <li>• 2 students: 8 marks</li> <li>• 1 student: 5 marks</li> <li>• At least one student has submitted thesis which is under evaluation : 3 marks</li> <li>• If no PhD students graduated/thesis submitted or if the institution is not an approved research centre of KTU: 0 marks</li> </ul>

#### 7.1.4: Outreach and Inclusivity (OI)

Sl. No.	Parameter	Criteria and Marking Guide
7.1.4.1	Facilities for Differently Abled (FDA)	<p>Inclusive infrastructure and adequate facilities (ramps, special toilets, walkways, lifts, other academic facilities such as learning software for differently abled, etc.)</p> <p>Marks for facilities provided to Differently Abled Persons in all Academic Blocks including Library, Computer Centre and other facilities:</p> <ul style="list-style-type: none"> <li>• Ramps and Hand rails: 3 marks</li> <li>• Lifts: 3 marks</li> <li>• Disabled-friendly toilets: 2 marks</li> </ul>



		<ul style="list-style-type: none"> <li>• Braille / Special Labs: 1 mark</li> <li>• Audio Visual Aids including software: 1 marks</li> </ul> <p>If all the above-mentioned facilities are sufficiently available in all the departments: 10 marks                  If facilities are not available in some Academic blocks, proportionately reduce.                  No facilities for differently abled: 0 mark</p>												
7.1.4.2	Social Inclusiveness (SI)	<p>Let</p> <ul style="list-style-type: none"> <li>• <math>n_s</math> = Total members in the academic year (students + faculty + non-teaching staff)</li> <li>• <math>n_{sc}</math> = Total Scheduled Caste (SC) members</li> <li>• <math>n_{st}</math> = Total Scheduled Tribe (ST) members</li> <li>• <math>n_{obc}</math> = Total Other Backward Class (OBC) members</li> <li>• <math>n_w</math> = Total women members</li> <li>• <math>n_d</math> = Total differently-abled members</li> <li>• <math>n_{ews}</math> = Total economically weaker section (EWS) members</li> <li>• <math>n_{tg}</math> = Total transgender members</li> </ul> <table border="1"> <thead> <tr> <th>Category</th> <th>Formula</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>SC (Scheduled Castes)</td> <td><math>=\text{MIN}((n_{sc} / n_s) * 100, 15) / 15 * 4</math></td> <td>Formula: <math>SC\% = (n_{sc} \div n_s) \times 100</math>. Maximum marks = 4 if <math>SC\% \geq 15\%</math>. Score = <math>(\text{MIN}(SC\%, 15) \div 15) \times 4</math>. Example: If <math>n_{sc} = 120, n_s = 1000 \rightarrow SC\% = 12\% \rightarrow \text{Score} = 4 * (12 \div 15) = 3.2</math> marks.</td> </tr> <tr> <td>ST (Scheduled Tribes)</td> <td><math>=\text{MIN}((n_{st} / n_s) * 100, 5) / 5 * 3</math></td> <td>Formula: <math>ST\% = (n_{st} \div n_s) \times 100</math>. Maximum marks = 3 if <math>ST\% \geq 5\%</math>. Score = <math>(\text{MIN}(ST\%, 5) \div 5) \times 3</math>. Example: If <math>n_{st} = 30, n_s = 1000 \rightarrow ST\% = 3\% \rightarrow \text{Score} = (3 \div 5) \times 3 = 1.8</math> marks.</td> </tr> <tr> <td>OBC (Other Backward Classes)</td> <td><math>=\text{MIN}((n_{obc} / n_s) * 100, 50) / 50 * 3</math></td> <td>Formula: <math>OBC\% = (n_{obc} \div n_s) \times 100</math>. Maximum marks = 3 if <math>OBC\% \geq 50\%</math>. Score = <math>(\text{MIN}(OBC\%, 50) \div 50) \times 3</math>. Example: If <math>n_{obc} = 400, n_s = 1000 \rightarrow OBC\% = 40\% \rightarrow \text{Score} = (40 \div 50) \times 3 = 2.4</math> marks.</td> </tr> </tbody> </table>	Category	Formula	Description	SC (Scheduled Castes)	$=\text{MIN}((n_{sc} / n_s) * 100, 15) / 15 * 4$	Formula: $SC\% = (n_{sc} \div n_s) \times 100$ . Maximum marks = 4 if $SC\% \geq 15\%$ . Score = $(\text{MIN}(SC\%, 15) \div 15) \times 4$ . Example: If $n_{sc} = 120, n_s = 1000 \rightarrow SC\% = 12\% \rightarrow \text{Score} = 4 * (12 \div 15) = 3.2$ marks.	ST (Scheduled Tribes)	$=\text{MIN}((n_{st} / n_s) * 100, 5) / 5 * 3$	Formula: $ST\% = (n_{st} \div n_s) \times 100$ . Maximum marks = 3 if $ST\% \geq 5\%$ . Score = $(\text{MIN}(ST\%, 5) \div 5) \times 3$ . Example: If $n_{st} = 30, n_s = 1000 \rightarrow ST\% = 3\% \rightarrow \text{Score} = (3 \div 5) \times 3 = 1.8$ marks.	OBC (Other Backward Classes)	$=\text{MIN}((n_{obc} / n_s) * 100, 50) / 50 * 3$	Formula: $OBC\% = (n_{obc} \div n_s) \times 100$ . Maximum marks = 3 if $OBC\% \geq 50\%$ . Score = $(\text{MIN}(OBC\%, 50) \div 50) \times 3$ . Example: If $n_{obc} = 400, n_s = 1000 \rightarrow OBC\% = 40\% \rightarrow \text{Score} = (40 \div 50) \times 3 = 2.4$ marks.
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ST (Scheduled Tribes)	$=\text{MIN}((n_{st} / n_s) * 100, 5) / 5 * 3$	Formula: $ST\% = (n_{st} \div n_s) \times 100$ . Maximum marks = 3 if $ST\% \geq 5\%$ . Score = $(\text{MIN}(ST\%, 5) \div 5) \times 3$ . Example: If $n_{st} = 30, n_s = 1000 \rightarrow ST\% = 3\% \rightarrow \text{Score} = (3 \div 5) \times 3 = 1.8$ marks.												
OBC (Other Backward Classes)	$=\text{MIN}((n_{obc} / n_s) * 100, 50) / 50 * 3$	Formula: $OBC\% = (n_{obc} \div n_s) \times 100$ . Maximum marks = 3 if $OBC\% \geq 50\%$ . Score = $(\text{MIN}(OBC\%, 50) \div 50) \times 3$ . Example: If $n_{obc} = 400, n_s = 1000 \rightarrow OBC\% = 40\% \rightarrow \text{Score} = (40 \div 50) \times 3 = 2.4$ marks.												



		<p>Women</p> <p><math>=\text{MIN}((n_w / n_s) * 100, 65) / 65 * 3</math></p> <p>Formula: Women% = <math>(n_w \div n_s) \times 100</math>. Maximum marks = 3 if Women% <math>\geq</math> 65%. Score = <math>(\text{MIN}(\text{Women}\%, 65) \div 65) \times 3</math>. Example: If <math>n_w = 550, n_s = 1000 \rightarrow \text{Women}\% = 55\% \rightarrow \text{Score} \approx (55 \div 65) \times 3 \approx 2.54</math> marks.</p>
		<p>Differently Abled</p> <p><math>=\text{MIN}((n_d / n_s) * 100, 4) / 4 * 3</math></p> <p>Formula: DA% = <math>(n_d \div n_s) \times 100</math>. Maximum marks = 3 if DA% <math>\geq</math> 4%. Score = <math>(\text{MIN}(\text{DA}\%, 4) \div 4) \times 3</math>. Example: If <math>n_d = 20, n_s = 1000 \rightarrow \text{DA}\% = 2\% \rightarrow \text{Score} = (2 \div 4) \times 3 = 1.5</math> marks.</p>
		<p>EWS (Economically Weaker Section)</p> <p><math>=\text{MIN}((n_{ews} / n_s) * 100, 10) / 10 * 5</math></p> <p>Formula: EWS% = <math>(n_{ews} \div n_s) \times 100</math>. Maximum marks = 5 if EWS% <math>\geq</math> 10%. Score = <math>(\text{MIN}(\text{EWS}\%, 10) \div 10) \times 5</math>. Example: If <math>n_{ews} = 80, n_s = 1000 \rightarrow \text{EWS}\% = 8\% \rightarrow \text{Score} = (8 \div 10) \times 5 = 4</math> marks.</p>
		<p>Transgender</p> <p><math>=\text{IF}(n_{tg} \geq 5, 3, \text{IF}(n_{tg} \geq 2, 2, \text{IF}(n_{tg} \geq 1, 1, 0)))</math></p> <p>Formula: Stepwise allocation: <math>n_{tg} \geq 5 \rightarrow 3</math> marks; <math>n_{tg} = 2-4 \rightarrow 2</math> marks; <math>n_{tg} = 1 \rightarrow 1</math> mark; <math>n_{tg} = 0 \rightarrow 0</math> marks. Example: If <math>n_{tg} = 3 \rightarrow \text{Score} = 2</math> marks.</p>
		<p>Let MaxScore be the sum of all category scores above.                  The MaxScore must be scaled to a maximum of 10 marks:                  Scaling to 10 marks = <math>\text{MaxScore} \div 24 \times 10</math>                  Since the maximum possible MaxScore is 24, the scaling factor is: <math>10 \div 24 \approx 0.4167</math>                  Formula:                  ScaledScore = <math>(\text{TotalScore} \div 24) \times 10</math>                  Example:                  If MaxScore = 18.44 <math>\rightarrow</math> ScaledScore = <math>(18.44 \div 24) \times 10 \approx 7.68</math> marks.                  The Total Score is computed by multiplying the ScaledScore (7.68) with weight as per Table 4.2.</p> <p>Document to be submitted for verification: List of students and staff by category (SC/ST/OBC/Women/Differently Abled/EWS/Transgender, etc.), certified by the Principal.</p>
7.1.4.3	Pay and Allowances	<ul style="list-style-type: none"> <li>• AICTE 7th pay with State Government DA and allowances or higher: 10 marks</li> <li>• AICTE 7th pay with lower DA and allowances than State Government: 8 marks</li> <li>• AICTE 6th pay (Basic+AGP) with State Government DA and</li> </ul>



		<p>allowances: 5 marks</p> <ul style="list-style-type: none"> <li>• AICTE 6th pay (Basic+AGP) with lower DA and allowances than State Government: 4 marks</li> <li>• AICTE 7th pay (Basic only) and no allowances: 4 marks</li> <li>• AICTE 6th pay (Basic+AGP only) and no allowances: 2 marks</li> <li>• Consolidated pay lower than AICTE 6th pay: 0 mark</li> </ul> <p>Proof: Acquittance Register and IT Returns of Faculty.</p>
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### 7.1.5: Safety, Scientific Temper, and Adoption of Green Technologies

Sl. No.	Parameter	Criteria & Marking Guide
7.1.5.1	Safety Measures	<p>Fire Safety &amp; Emergency Preparedness:</p> <ul style="list-style-type: none"> <li>• Fire extinguishers and alarms installed and functional.</li> <li>• Clearly marked emergency evacuation routes.</li> <li>• Regular mock drills conducted. (Verification based on records, including dates, participants, and reports.)</li> </ul> <p>Security &amp; Surveillance:</p> <ul style="list-style-type: none"> <li>• CCTV coverage at critical locations.</li> <li>• 24x7 security personnel. (Verification based on attendance logs or duty rosters.)</li> </ul> <p>Laboratory Safety:</p> <ul style="list-style-type: none"> <li>• Compliance with standard laboratory safety protocols (e.g., fume hoods, emergency showers) wherever applicable.</li> <li>• Mandatory use of Personal Protective Equipment (PPE) such as gloves, goggles, lab coats, and shoes wherever applicable.</li> <li>• Safety instructions prominently displayed.</li> </ul> <p>General Safety:</p> <ul style="list-style-type: none"> <li>• Periodic safety audits conducted and corrective actions documented. At least one per year.</li> <li>• First-aid kits available at accessible points.</li> <li>• Safety signage installed in labs, corridors, etc. (e.g., Fire Exit, First Aid Box, High Voltage)</li> <li>• Parapet walls on terraces and corridors constructed to a minimum height of 1.2 m. (Verification based on building plan and random physical inspection.)</li> </ul> <p>Electrical Safety:</p> <ul style="list-style-type: none"> <li>• Certified electrical systems with MCBs and ELCBs/RCCBs installed.</li> <li>• Proper installation and regular maintenance of electrical appliances, with adequate protection against live wires.</li> <li>• <b>Note:</b> Verification shall be based on annual electrical safety audit reports conducted by a competent authority (A Grade supervisory license holder, license issued by the Kerala State Electricity Licensing Body, Government</li> </ul>



		<p>of Kerala/ Chartered Engineers/ Certified Energy Auditor by the Bureau of Energy Efficiency (BEE).), along with random checks by academic auditors for exposed or damp wiring.</p> <p>Marking Criteria::</p> <ul style="list-style-type: none"> <li>• 10 Marks: Full compliance with evidence of audits, maintenance, and training.</li> <li>• 8 Marks: High compliance with minor gaps.</li> <li>• 6 Marks: Substantial compliance with some inconsistencies.</li> <li>• 4 Marks: Efforts evident but lacking systematic implementation.</li> <li>• 2 Marks: Minimal compliance with limited evidence.</li> <li>• 0 Marks: Negligible or no compliance.</li> </ul>
7.1.5.2	Adoption of Green Technologies	<p>Assessment Parameters:</p> <ol style="list-style-type: none"> <li>1. Waste Management: <ul style="list-style-type: none"> <li>• Proper waste segregation, recycling, and scientific disposal systems, Sewage Treatment Plants (STPs), etc.</li> <li>• Minimization of single-use plastics and promotion of eco-friendly alternatives</li> </ul> </li> <li>2. Energy Efficiency and Sustainable Sources: <ul style="list-style-type: none"> <li>• Installation and utilization of solar panels or other renewable energy sources.</li> <li>• Use of energy-efficient equipment (e.g., LED lighting, Energy Star appliances).</li> </ul> </li> <li>3. Water Management and Conservation: <ul style="list-style-type: none"> <li>• Implementation of rainwater harvesting systems and water recycling facilities.</li> </ul> </li> <li>4. Biodiversity and Campus Greenery: <ul style="list-style-type: none"> <li>• Maintenance of green spaces such as parks, gardens, and tree plantations.</li> </ul> </li> </ol> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• Fulfilment of all parameters with evidence of significant outcomes: 10 marks</li> <li>• High-level compliance, with only minor gaps or partial implementations: 8 marks</li> <li>• Substantial compliance, but with noticeable room for improvement in key areas: 6 marks</li> <li>• Efforts toward sustainability are evident but lack systematic implementation or results: 4 marks</li> </ul>



		<ul style="list-style-type: none"> <li>•Minimal compliance; limited evidence of sustainable practices: 2 marks</li> <li>•Negligible or no efforts toward adopting green technologies: 0 marks</li> </ul>
<b>7.1.5.3</b>	Imparting Scientific Temper and Secular Outlook through Professional Societies/Bodies, Chapters, Clubs, and Professional Engineering Events	<p>Assessment Areas (Past 3 Years):</p> <ul style="list-style-type: none"> <li>• Professional Societies &amp; Chapters – Active chapters (e.g., IEEE, ACM, SAE, ISTE) and the events, seminars, and workshops organized under them.</li> <li>• NSS/NCC Engineering Initiatives – Events or outreach activities organized by NSS/NCC that apply engineering skills for social or environmental benefit.</li> <li>• Technical Outreach &amp; Extension – Events such as student project exhibitions, workshops, hackathons, and collaborative community projects.</li> <li>• Events or lectures explicitly addressing professional ethics, secular outlook, and social responsibility.</li> </ul> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• ≥3 active professional chapters, active NSS or NCC units, and ≥10 technical/outreach events: 10 marks</li> <li>• ≥2 professional chapters plus either NSS or NCC units, 7–9 events: 8 marks</li> <li>• ≥2 professional chapters or either NSS or NCC units, 5–6 events: 6 marks</li> <li>• ≥1 professional chapter or NSS/NCC units, 3–4 events: 4 marks</li> <li>• 1–2 events only, with no professional chapters or NSS/NCC involvement: 2 marks</li> <li>• No events or professional chapters/NSS/NCC involvement.: 0 mark</li> </ul>

#### 7.1.6: Ranking and Accreditation

Sl. No.	Parameter	Criteria & Marking Guide
7.1.6.1	NBA Accreditation	<ul style="list-style-type: none"> <li>• 80% of the UG programmes accredited: 10 marks</li> <li>• 60% of the UG programmes accredited: 8 marks</li> <li>• 40% of the UG programmes accredited: 6 marks</li> <li>• At least 1 UG/PG programme accredited: 4 marks</li> <li>• No programmes accredited: 0 mark</li> </ul> <p>Note: 1. The maximum marks are capped at 10.</p>



		<p>Example: If 80% of UG programmes and 1 PG programme are accredited, the awarded marks will be 10, not 14.</p> <p>2. If the NBA accreditation expired immediately prior to the academic audit and if the NBA visit has been scheduled or revised SAR has been submitted, the programmes can be considered to be accredited.</p>
7.1.6.2	Ranking	<p><b>Only overall rankings from the latest NIRF/KIRF ranking will be considered.</b></p> <p>National Ranking (NIRF) less than 101: 10 marks  National Ranking (NIRF) less than 201: 9 marks  Features in the National Ranking (NIRF): 8 marks  KIRF Ranking less than 30: 6 marks  KIRF Ranking between 31 and 60: 4 marks  Features in KIRF Ranking: 2 marks  No ranking: 0 mark</p>

### 7.1.7: Infrastructure Adequacy (IA)

Sl. No.	Parameter	Criteria & Marking Guide
7.1.7.1	Classrooms	<ul style="list-style-type: none"> <li>Required number of classrooms and tutorial rooms = Total number of divisions per year × Total duration of the course (in years)</li> <li>Adequate seating for the PhD Scholars at Research Centres is mandatory.</li> <li>CCTV cameras shall be installed in examination rooms for surveillance.</li> </ul> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>Adequate number of classrooms and tutorial rooms with at least 80% smart classroom per department, CCTV cameras in 100% of the examination rooms : 10 marks</li> <li>Adequate number of classrooms and tutorial rooms with at least 50% smart classroom per department, CCTV cameras in at least 80% of the examination rooms : 8 marks</li> <li>Adequate number of classrooms and tutorial rooms with at least one smart classroom per department : 6 marks</li> <li>At least 75% of required classrooms, tutorial rooms available and at least one smart classroom in the institution: 4 marks</li> <li>If the above are not met: 0 marks</li> </ul> <p><b>Documents to be verified:</b> The college shall provide the list of examination rooms used during the previous University Regular Examinations</p>
7.1.7.2	Laboratories	<p>Note:</p> <p>1. Usage: A laboratory room may be used in both odd and even</p>



		<p>semesters for two different labs.</p> <p>2. Verification: Stock register verification must match physical verification.</p> <p>3. Facilities: One PG lab per programme; one research lab with adequate seating; scholars may use PG labs if needed.</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• Sufficient labs/workshops with full equipment/software; dedicated PG/research labs for PG &amp; PhD programmes: 10 marks</li> <li>• Sufficient labs/workshops; research scholars accommodated in PG labs (no separate research lab): 8 marks</li> <li>• Sufficient labs but lacking required equipment/software for full syllabus: 4 marks</li> <li>• Equipment/software sufficient but labs inadequate in number: 4 marks</li> <li>• Limited labs and major equipment/software deficiencies: 2 marks</li> <li>• Grossly inadequate infrastructure (insufficient laboratories and equipment/software): 0 marks</li> <li>• For institutions without PG/PhD programmes, proportional marks shall be awarded, not exceeding 8 marks.</li> </ul>
7.1.7.3	Computer Centre	<ul style="list-style-type: none"> <li>• One central computing facility per 600 students (+1 for 601–1200 intake)</li> <li>• Must include servers, nodes, licensed/open source software, network, printers, internet leased line, Wi-Fi</li> <li>• Support research, thesis, projects for all students</li> <li>• Consider ambience and air-conditioning</li> </ul> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• All above facilities available: 10 marks</li> <li>• Otherwise: Proportional marks based on facilities available</li> </ul>
7.1.7.4	Library	<p>Facilities:</p> <ol style="list-style-type: none"> <li>1. Reading room with multimedia PCs for digital access &amp; internet</li> <li>2. Compliance with AICTE norms for the number of books: <ul style="list-style-type: none"> <li>• 100 titles for First Year.</li> <li>• 50 titles per course for 2nd to 4th Year.</li> <li>• Volumes = 5 × Number of Titles × Number of Divisions.</li> <li>• Titles and Volumes to be progressively increased for 10 years from the commencement of the course(s), forming the minimum stock of books.</li> </ul> </li> <li>3. Digital library with ≥ 1000 titles</li> <li>4. Reprographic centre with scanning facilities</li> </ol>



		<p>5. Access to online courses</p> <p>6. Library automation software with barcoding desirable</p> <p>7. The Institution shall be a member of National Digital Library(NDL)</p> <p>8. Functional hours: <math>\geq 12</math> hrs/day</p> <p>Marking Criteria:</p> <ul style="list-style-type: none"> <li>• 10 marks: All facilities (points 1–8)</li> <li>• 8 marks: All facilities (points 1–7), automation software available, timings not as per point 8</li> <li>• 6 marks: All facilities (points 1–7), no automation software, timings not as per point 8</li> <li>• 2 marks: Facilities listed as 2, 4 available. Digital library has fewer than 1,000 titles, or no digital library, or insufficient digital library facilities, or inadequate access to online resources.</li> <li>• 0 marks: Does not comply with AICTE norms for the number of books.</li> </ul>
7.1.7.5	Administrative Area & Faculty Rooms	<p>Adequate administrative area, Principal’s room, conference room, HoD rooms, seminar hall and an adequate number of faculty cabins/seating arrangements for faculty.</p> <p>If all the above facilities are available, award 10 marks.</p> <p>Proportional marks will be awarded based on the facilities available.</p> <p>If any department lacks separate faculty cabins/HoD rooms, the maximum marks shall be limited to 5.</p>

### 7.1.8: Transformation Efforts (TE)

Sl. No.	Parameter	Criteria & Marking Guide
7.1.8.1	Academic performance of students with low entrance ranks (average of the previous three academic years)	<p>Performance Category Based on Students with Entrance Ranks greater than 20,000 (i.e., 20,001 onwards, including candidates not qualified in the entrance examination):</p> <ul style="list-style-type: none"> <li>• More than 60% of students completed the programme within the minimum stipulated course duration: 10 marks</li> <li>• 50–60% of students completed the programme within the minimum stipulated course duration: 8 marks</li> <li>• 40–50% of students completed the programme within the minimum stipulated course duration: 6 marks</li> <li>• 30–40% of students completed the programme within the minimum stipulated course duration: 4 marks</li> <li>• 20–30% of students completed the programme within the minimum stipulated course duration: 2 marks</li> <li>• Less than 20% of students completed the programme within the minimum stipulated course duration: 0 marks</li> </ul>



		<p>Note:</p> <ul style="list-style-type: none"> <li>• Only students who completed the programme within the minimum stipulated duration of 4 years required to earn the degree will be considered.</li> <li>• Institutions without any students with entrance ranks greater than 20,000 will also be awarded 10 marks.</li> </ul>
7.1.8.2	Placement and Higher Studies (previous academic year)	<p>Placement and Higher Education Assessment Criteria:</p> <ul style="list-style-type: none"> <li>• More than 50% of students with entrance ranks greater than 20,000 securing placement or higher education: 10 marks</li> <li>• 40–50%: 8 marks</li> <li>• 30–40%: 6 marks</li> <li>• 20–30%: 4 marks</li> <li>• 10–20%: 2 marks</li> <li>• Less than 10%: 0 marks</li> </ul> <p>Special Note:</p> <ul style="list-style-type: none"> <li>• Institutions without any students with entrance ranks greater than 20,000 will also be awarded 10 marks.</li> </ul> <p>Additional Criteria for Placement:</p> <ol style="list-style-type: none"> <li>1. Annual Pay Package: A minimum of ₹2.4 lakhs per annum is mandatory for placements to be considered valid.</li> <li>2. Proof of Placement: Valid job offer letters or appointment letters must be submitted as evidence.</li> </ol>

### 7.1.9: IQAC, Other Compliance Parameters & Interaction with Students

There will be **no assessment score** for the following criteria. Auditors shall **randomly verify relevant records** and **report any instances of non-compliance**. They shall also **assign a rating from 'Very Poor' to 'Excellent' based on the level of compliance**.

1	IQAC functioning	<p>Verify IQAC functioning and the timely uploading of IQAC reports.</p> <p><b>Note:</b> IQAC Reports, Principals Response to previous audit reports, IQAC Minutes book etc are to be verified.</p>
2	Compliance with the KTU Academic Calendar	Verify compliance with KTU Academic Calendar
3	Other Compliance Parameters & Compliance with Parameters Specified in BTech Regulations	<ul style="list-style-type: none"> <li>• Minor Programme Selection: Verify the minutes of the Scrutiny Committee and College Council meetings as per Clause R15.7 of the BTech 2024 Regulations.</li> <li>• Open Elective (OE) / Industry Linked Elective (ILE) Course Selection: Verify the minutes of the Scrutiny Committee and College Council meetings as per BTech 2024 Regulation R3.30.</li> <li>• Assessment of Industry Linked Electives (ILE): Verify relevant assessment documents as per BTech 2024 Regulation R3.32.</li> <li>• Attendance Requirement Relaxation: Verify relevant documents as per BTech 2024 Regulation R 6.2</li> </ul>



		<ul style="list-style-type: none"> <li>Sanction of special leave: Verify relevant documents as per B.Tech 2024 Regulation R 6.5</li> <li>Conduct of Class Committee and Class PTA Meetings: Verify relevant documents as per B.Tech 2024 Regulation R 5.5</li> </ul>
4	Interaction with Students	<p>Auditors must conduct meetings with selected students to gather feedback. The following parameters are for reporting only can be used to cross-verify the institution's claims regarding infrastructure, syllabus coverage, and other criteria.</p> <p><b>Parameters for Interaction:</b></p> <ul style="list-style-type: none"> <li>Syllabus coverage</li> <li>Lab facilities and conduct of labs</li> <li>Co-curricular facilities</li> <li>Extra-curricular facilities</li> <li>Management's approach to grievances</li> <li>Faculty availability for all subjects</li> <li>Extra fees/fines imposed on students</li> <li>Any other remarks</li> </ul>

## 7.2 Program Specific Assessments

A department may offer multiple programmes, and for the parameters listed below, calculations must be performed either programme-wise or department-wise, as applicable. Reports should be prepared separately for each programme (both UG and PG). If a faculty member is shared across multiple programmes or departments, all calculations should be based on the fractional workload attributed to such faculty.

Each department shall maintain a file for each of the following criteria, along with supporting documents for verification.

**Note:** If the Principal handles at least 4 hours of academic workload for a department, he/she can be included in the calculations for Faculty-Student Ratio (FSR), Faculty Qualification Index (FQI), and Faculty Cadre Ratio (FCR).

Sl. No	Parameter	Criteria & Marking Guide
1	Admission Percentage over the Last Three Years	Verification and rating of the programme are to be done similar to institution-level criteria 7.1.1.1 (evaluate programme-wise).
2	Faculty-Student Ratio (FSR)	Verification and rating of the programme are to be done similar to institution-level criteria 7.1.1.2 (evaluate programme-wise).
3	Faculty Qualification Index (FQI)	<p>Verification and rating of the programme are to be done similar to institution-level criteria 7.1.1.3 (evaluate department-wise).</p> <p><b>Marking Criteria:</b></p> <ul style="list-style-type: none"> <li>FQI <math>\geq 7</math> &amp; Ph.D.-qualified Professor/Associate Professor as HoD <math>\rightarrow</math> 10 marks</li> <li>FQI <math>\geq 6</math> &amp; Ph.D.-qualified Professor/Associate Professor as HoD <math>\rightarrow</math> 8 marks</li> <li>FQI <math>\geq 6</math> &amp; HoD not Ph.D.-qualified Professor/Associate Professor <math>\rightarrow</math> 6 marks</li> <li><math>4.5 \leq</math> FQI <math>&lt; 6 \rightarrow</math> 4 marks</li> <li>FQI <math>&lt; 4.5 \rightarrow</math> 0 marks</li> </ul>



4	Faculty Cadre Ratio (FCR) (Last 3 Years)	Verification and rating of the department are to be done similar to institution-level criteria 7.1.1.4 (evaluate department-wise).
5	Research Productivity – Journal Publications (Cumulative for the Last 3 Years)	Only SCIE/SCOPUS/ESCI/SSCI/AHCI indexed journals will be counted (evaluate department-wise).  <ul style="list-style-type: none"> <li>• 2 marks per publication</li> <li>• Maximum marks limited to 10</li> </ul>
6	Research Productivity – Conference Publications (Cumulative for last 3 Years)	Only Web of Science/SCOPUS indexed conference publications, book chapters, etc. will be counted (evaluate department-wise).  <ul style="list-style-type: none"> <li>• 2 marks per publication</li> <li>• Maximum marks limited to 10</li> </ul>
7	Pass percentage over the last three years (Pass in minimum stipulated period of 4 years only will be considered)	Verification and rating are to be done similar to institution-level criteria 7.1.3.1 (evaluate programme-wise).
8	Placement and higher studies percentage for the last three years	Verification and rating to be done similar to institution level criteria 7.1.3.2 (evaluate programme-wise)
9	Number of Qualified Technical Staff	Verify the technical staff strength using the attendance register and evaluate it department-wise based on their number and qualifications.  Note: <ul style="list-style-type: none"> <li>• A laboratory room can be used for conducting a laboratory course in an odd semester and another laboratory course in the even semester.</li> <li>• Each department shall have, for each laboratory room, at least one lab staff member with a Degree or PG Diploma/Diploma qualification and at least one lab staff member with an ITI qualification to ensure the effective conduct of lab sessions.</li> </ul> Evaluation Criteria: <ul style="list-style-type: none"> <li>• 10 marks: <ul style="list-style-type: none"> <li>- Number of technical staff members <math>\geq 2 \times</math> (number of laboratory rooms), and</li> <li>- At least one lab staff member per laboratory holds a Degree or Diploma qualification.</li> </ul> </li> <li>• 8 marks: <ul style="list-style-type: none"> <li>- Number of technical staff members <math>\geq 1.5 \times</math> (number of laboratory rooms), and</li> <li>- At least one lab staff member per laboratory holds a Degree or Diploma qualification.</li> </ul> </li> <li>• 6 marks: <ul style="list-style-type: none"> <li>- Number of technical staff members <math>\geq</math> number of laboratory rooms.</li> </ul> </li> <li>• 4 marks: <ul style="list-style-type: none"> <li>- Number of technical staff members <math>&gt; 0.5 \times</math> (number of laboratory</li> </ul> </li> </ul>



		rooms). • 2 marks: - Number of technical staff members < 50% of the number of laboratory rooms.																																																		
10	Faculty as Resource Persons or Participant in STTPs/FDPs (last 3 years to be considered)	<p>Evaluate Department-wise. The calculation of score (assessment points) is illustrated in the following table.</p> <table border="1"> <thead> <tr> <th>S.N.</th> <th>Name of the Faculty as Resource Person or Participant</th> <th>CAYm 1</th> <th>CAYm 2</th> <th>CAYm 3</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td></tr> <tr><td>Sum</td><td></td><td></td><td></td><td></td></tr> <tr> <td></td> <td>RDF=Number of faculty required to comply with the 20:1 student-faculty ratio in the Department alone, as per section 5.1 of SAR (RDF=DS/20).</td> <td>RDF_1</td> <td>RDF_2</td> <td>RDF_3</td> </tr> <tr> <td></td> <td>Assessment Points (AP)= (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)</td> <td>AP_1</td> <td>AP_2</td> <td>AP_3</td> </tr> <tr> <td></td> <td>Average assessment points (AAP) over 3 years= ((AP_1+AP_2+AP_3)/3) (Points limited to 5 over the assessment period each for faculty as a participant and faculty as resource person.)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1 Calculate the score for faculty as a resource person and faculty as a participant in two separate tables as shown above. Average Assessment Point for both faculty as a resource person and faculty as a participant is limited to 5. Total score =Average Assessment Point (Faculty as participant)+AAP (Faculty as a Resource Person) . Total score is limited to 10.</li> <li>2. We need to consider sanctioned intake of students (DS) in the department alone to determine the RDF value (Number of faculty required to comply with the 20:1 student-faculty ratio in the Department).</li> <li>3. Faculty members who participated in the FDP/STP programs at the parent institute will not be counted. Only participation in external programs will be considered.</li> <li>4. Participation in 2 to 5 days Faculty development program: 3 Points</li> <li>5. Participation in &gt;5 days Faculty/ Faculty development program: 5 points.</li> </ol>	S.N.	Name of the Faculty as Resource Person or Participant	CAYm 1	CAYm 2	CAYm 3	1					2					3					4					5					Sum						RDF=Number of faculty required to comply with the 20:1 student-faculty ratio in the Department alone, as per section 5.1 of SAR (RDF=DS/20).	RDF_1	RDF_2	RDF_3		Assessment Points (AP)= (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	AP_1	AP_2	AP_3		Average assessment points (AAP) over 3 years= ((AP_1+AP_2+AP_3)/3) (Points limited to 5 over the assessment period each for faculty as a participant and faculty as resource person.)			
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		6. Faculty as Resource Person: 5 points per FDP.
11	Faculty Contribution in Development of SWAYAM MOOCs and Other E-content (Last 3 Years)	<p>Evaluate Department-wise.</p> <ul style="list-style-type: none"> <li>• At least one MOOC course developed for national educational initiatives such as SWAYAM MOOCs, SWAYAM Plus, NPTEL, or e-PG Pathshala or MOOC course or e-content developed for and accepted by KTU during the assessment period: 10 marks</li> <li>• No MOOC course developed for the above-mentioned platforms, but MOOC/e-content has been developed for the institution for at least five KTU courses and is available on the institution's LMS, YouTube, or other platforms: 8 marks</li> <li>• MOOC/e-content developed for fewer than five KTU courses and available on the institution's LMS or YouTube platforms: 4 marks</li> <li>• MOOC/e-content developed for two or fewer KTU courses and available on the institution's LMS or YouTube platforms: 2 marks</li> <li>• No e-content developed: 0 marks</li> </ul>
12	Faculty Certification of MOOCs through SWAYAM etc. (Last 3 Years)	<ul style="list-style-type: none"> <li>• Evaluate Department-wise.</li> <li>• 2 points for each MOOC certification.</li> <li>• Maximum 10 points.</li> </ul>
13	FDP/STTP Organized by the Department (Last 3 Years)	<ul style="list-style-type: none"> <li>• The minimum duration of FDP/STTP should be 5 days.</li> <li>• 2 points per FDP/STTP.</li> <li>• Maximum 4 points per assessment year.</li> <li>• Maximum 10 points over the last 3 years.</li> </ul> <p><b>Note:</b> Verification based on proceedings, participant's list, list of resource persons, brochure etc.</p>
14	Syllabus Coverage as per Course Plan	<p>Verify course diary along with course files of current academic year randomly and check whether the syllabus is covered accordingly. Rating to be done based on syllabus coverage. Interaction with students may also be considered. Evaluate programme-wise.</p> <p>Evaluation Criteria:</p> <ul style="list-style-type: none"> <li>• 100% syllabus covered as per plan – 10 marks</li> <li>• 90–99% syllabus covered – 8 marks</li> <li>• 75–89% syllabus covered – 6 marks</li> <li>• 50–74% syllabus covered – 4 marks</li> <li>• Less than 50% syllabus covered – 0 marks</li> </ul> <p><b>Note:</b> For audits conducted during mid-semester, syllabus coverage will be assessed proportionally based on the stage of course progression.</p>
15	Evaluation of Continuous Assessment: Assignments, Series Tests, etc. (Programme-wise)	<p>Conduct random verification of series exam question papers, sample answer scripts, and assignments during current academic year. Verify from course files whether the department follows documented procedures to ensure: (i) Quality of question papers (ii) Constructive alignment of questions with COs and POs/PSOs (iii) Scheme of</p>



		<p>evaluation (e.g., approval by DQAC/IQAC). Also, verify sample answer scripts and assignment submissions.</p> <p>Evaluation Criteria:</p> <ul style="list-style-type: none"> <li>• Well-defined and consistently implemented process; questions aligned with COs/POs/PSOs; evaluation scheme structured and documented; course files complete – 10 marks</li> <li>• Procedures exist but are inconsistently implemented; documentation has minor gaps – 6 marks</li> <li>• No standardized process; questions inadequately framed; poor alignment with learning outcomes; inconsistent or missing documentation – 2 marks</li> </ul>
16	Maintenance of A, B, C, and D Files (Last 3 Years)	<p>Proper upkeep of A, B, C, and D files is critical for NBA accreditation. Departments must ensure that these files are complete, accurate, and up-to-date.</p> <ul style="list-style-type: none"> <li>• Excellent (10 marks) – if all files meet the above criteria</li> <li>• Otherwise, proportional marks will be awarded based on compliance.</li> </ul>
17	Computing Facility in the Department	<p>The department shall have well-maintained computer labs as per AICTE/curriculum requirements, with sufficient servers, nodes, licensed software, internet connectivity, printers, etc. Facilities should support UG/PG project/thesis work. Physical verification will be conducted.</p> <ul style="list-style-type: none"> <li>• Excellent (10 marks): Well-maintained, air-conditioned computer labs with adequate computers (minimum 20 PCs per program) and relevant licensed software</li> <li>• Poor (0 marks): Fewer than 20 PCs per program.</li> </ul> <p>Note: If facilities do not fully meet the “Excellent” criteria, marks shall be awarded proportionally based on adequacy and maintenance.</p>
18	Assessment of Outcomes (Programme-wise)	<p>Refer to Section 6. Verify the following from random verification of course files:</p> <ul style="list-style-type: none"> <li>• Whether COs and knowledge levels are mentioned in internal/assignment question papers.</li> <li>• Whether appropriate tools are used for CO/PO assessment.</li> <li>• Whether CO attainment levels are set for each course.</li> <li>• Whether CO/PO attainment calculation has been completed.</li> <li>• Whether PO/PSO attainment is measured through both direct (student performance) and indirect (surveys) methods.</li> <li>• For projects: verify rubrics, PO/PSO linkages, and evidence of student assessment.</li> <li>• Evidence of continuous improvement.</li> </ul> <p>Marks: 0–10 (Excellent – 10, Very Good – 8, Good – 6, Fair – 4, Poor – 0).</p>
19	Maintenance of Course Diary	<p>The course diary must be diligently maintained for each subject by faculty. It should include syllabus, course plan, assignments, attendance, test marks, extra classes, course materials, and use of ICT/digital methods. Faculty must update it regularly with complete and accurate records. Random verification shall be conducted for the current academic year</p> <p><b>Marks:</b> Very Poor (0) to Excellent (10), based on completeness, documentation, and updates.</p>



20	Professional Societies/Chapters, Extracurricular and Co-curricular Activities (Last 3 Years)	<p>Assess the availability and functioning of societies/chapters (IEEE, ACM, CSI, ASME, etc.), technical clubs, and associations. Evaluate the quality and frequency of activities, engineering events, and student participation in external competitions (hackathons, codeathons, etc.).</p> <ul style="list-style-type: none"> <li>• 10 marks: Multiple active societies/clubs; frequent high-quality events; significant student participation and achievements.</li> <li>• 6 marks: Societies/clubs exist but with fewer or lower-impact activities; some student participation/achievements.</li> <li>• 4 marks: At least one society/club exists; limited events; minimal participation or achievements.</li> <li>• 0 mark: No active societies/clubs; very few or no events; negligible student participation or achievements.</li> </ul>
21	NBA Accreditation	<ul style="list-style-type: none"> <li>• 10 marks: The programme is accredited</li> <li>• 0 mark: The programme is not accredited.</li> </ul>

## 8.0 CHECKLIST

### 8.1 Principal

- Ensure all staff are made aware of the audit procedure and related documentation.
- Instruct the IQAC Coordinator and HoDs to prepare documents as detailed in the audit manual.
- Verify that internal audits are conducted at prescribed intervals and initiate corrective actions wherever required.
- Respond to observations and remarks in the corresponding columns of the external auditor's report.

### 8.2 IQAC Coordinator

- Conduct internal audits twice each semester with two members of the IQAC team.
- Maintain internal audit report, containing details and supporting evidence for each criterion of the Academic Audit Manual. This will facilitate a smoother external audit process.
- Ensure all documents listed in Section 5 and any other documents required as per Section 7 are accurately prepared and updated.
- Coordinate with the external auditors and arrange for the audit.
- Provide assistance to the external auditors throughout the audit process.
- Arrange for a member of the IQAC (preferably from the concerned department) to assist the external auditor in evaluating program-specific aspects.

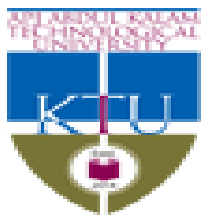
### 8.3 External Auditors

- Notify the Principal/IQAC Coordinator of the assigned college about the audit schedule.
- Conduct the audit meticulously as per the audit manual.
- Prepare the audit report with detailed remarks for all specified columns.
- Upload the completed report within one week of the audit.
- Submit claims for TA/DA and honorarium within two weeks of completing the audit.



## 9. Sample Audit Report Formats

### 9.1 College Specific Assessments



**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
 Thiruvananthapuram - 695016  
 Kerala  
 India

Name of Institution	
Names of Auditors	
Date	
Semester Type (Odd/ Even)	

Sl. No	Parameter	Score	Auditor's Remarks	Principal's Response
<b>7.1.1</b>	<b>Teaching, Learning &amp; Resources (TLR)</b>			
7.1.1.1	Admission percentage over the last three years			
7.1.1.2	Faculty-Student Ratio (FSR)			
7.1.1.3	Faculty Qualification Index (FQI)			
7.1.1.4	Faculty Cadre Ratio			
7.1.1.5	Faculty Retention			
7.1.1.6	Financial Resources Utilization			
<b>7.1.2</b>	<b>Research Footprint/Consultancy/Startups (RFCS)</b>			
7.1.2.1	Research Productivity: Journal			
7.1.2.2	Research Productivity: Conference Publications			
7.1.2.3	Research Impact: RI			
7.1.2.4	Intellectual Property Rights			



7.1.2.5	Sponsored Research/Consultancy			
7.1.2.6	Startups			
<b>7.1.3</b>	<b>Graduation Outcome (GO)</b>			
7.1.3.1	Pass percentage over the last three years			
7.1.3.2	Placement and higher studies percentage for the last three years			
7.1.3.3	Number of PhD students graduated			
<b>7.1.4</b>	<b>Outreach and Inclusivity (OI)</b>			
7.1.4.1	Facilities for Differently Abled (FDA)			
7.1.4.2	Social Inclusiveness (SI)			
7.1.4.3	Pay and Allowances			
<b>7.1.5</b>	<b>Safety, Scientific Temper and Adoption of Green Technologies</b>			
7.1.5.1	Safety Measures			
7.1.5.2	Adoption of Green Technologies			
7.1.5.3	Imparting Scientific Temper and Secular Outlook			
<b>7.1.6</b>	<b>Ranking and Accreditation</b>			
7.1.6.1	NBA accreditation			
7.1.6.2	Ranking			
<b>7.1.7</b>	<b>Infrastructure Adequacy (IA)</b>			
7.1.7.1	Class Rooms & Tutorial rooms			
7.1.7.2	Laboratories			
7.1.7.3	Computer Centre			



7.1.7.4	Library			
7.1.7.5	Administrative Area & Faculty Rooms			
<b>7.1.8</b>	<b>Transformation Efforts (TE)</b>			
7.1.8.1	Academic performance of students with low entrance ranks			
7.1.8.2	Placement and Higher Studies			
	<b>Total Score (Out of 400)</b>		<b>Overall Rating</b>	

**IQAC and Other Compliance Parameters**

Sl. No.	Parameter	Rating	Auditor's Remarks	Principal's Response
1	IQAC functioning			
2	Compliance with KTU Academic Calendar			
2	Other Compliance Parameters & Compliance with Parameters Specified in BTech Regulations			

**Interaction with Students**

Sl. No.	Parameter	Rating	Auditor's Remarks	Principal's Response
1	Syllabus coverage			
2	Lab Facility and conduct of Labs			
3	Co-curricular facility			
4	Extra-curricular facility			
5	Approach of the management in addressing student grievance			
6	Availability of Faculty for all subjects			
7	Extra fees/fine imposed on students			
8	Any other remarks			



## 9.2 PROGRAM SPECIFIC ASSESSMENTS

**Name of Program:****Branch/Specialization:****Institution:**

Sl. No	Parameter	Score	Auditor Remarks	Principal's Response
1	Admission percentage over the last three years:			
2	Faculty-Student Ratio (FSR)			
3	Faculty Qualification Index (FQI)			
4	Faculty Cadre Ratio (FCR)			
5	Research Productivity: Journal Publications			
6	Research Productivity: Conference Publications			
7	Pass percentage over the last three years (pass in minimum stipulated time only will be considered)			
8	Placement and higher studies percentage for the last three years			
9	Number of qualified technical staff			
10	Faculty as Resource Persons or Participant in STTPs/FDPs			
11	Faculty Contribution in Development of SWAYAM MOOCs and other E-Content			
12	Faculty Certification of MOOCs through SWAYAM, etc.			
13	FDP/STTP Organized by the Department			
14	Syllabus coverage as per course plan			



15	Evaluation of Continuous Assessment: Assignments, Series tests etc.			
16	Maintenance of A, B, C, and D Files			
17	Computing facility in the department:			
18	Assessment of Outcomes			
19	Maintenance of Course Diary			
20	Professional Societies/Chapters, Extracurricular, and Co-curricular Activities			
21	NBA accreditation			
	<b>Total Score (Out of 300)</b>		<b>Overall Rating:</b>	

