
**A WEB-BASED FRAMEWORK FOR MANAGING FACULTY
INFORMATION AND CONTRIBUTIONS UNDER NBA CRITERION 5**

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ABSTRACT

Faculty quality is the bedrock of technical education excellence. In India, the National Board of Accreditation (NBA) sets rigorous standards for evaluating institutional faculty performance, particularly through Criteria 5—Faculty Information and Contributions. This paper delivers an web- Application exploration of NBA Criteria 5 tailored to diploma engineering institutions, contextualized within recent updates outlined in the NBA 2025 guidelines. Through systematic deconstruction of sub-criteria, marks distribution, and assessment methodologies, the study elucidates the paradigm shift from subjective

compliance to evidence-based, data-driven evaluation. Drawing on institutional case studies and comparative data visualization, the paper contrasts Tier I and Tier II research expectations, highlights the growing imperative for industry-academia collaboration, and underscores the integration of Sustainable Development Goals (SDGs) and innovative teaching practices. The research synthesizes insights from both technical education quality assurance literature and advanced data management frameworks, advocating actionable strategies for compliance and continuous improvement. The findings underscore the transformative potential of robust faculty information systems and collaborative, technology-driven approaches in achieving and sustaining NBA accreditation.

KEYWORDS: NBA accreditation, diploma engineering education, faculty development, teaching innovation, industry collaboration, research expectations, sustainable development goals, quality assurance, data visualization

INTRODUCTION

1.1 Context and Significance

Faculty quality is universally recognized as the principal determinant of student learning outcomes and institutional reputation in technical education. Within India's complex landscape of technical and vocational training, diploma-level engineering institutions serve as critical conduits for skilled workforce development, bridging secondary education and industry or higher education pathways. The National Board of Accreditation (NBA), operating autonomously under the aegis of the All India Council for Technical Education (AICTE), has established a comprehensive framework for institutional evaluation and accreditation, with Criteria 5— Faculty Information and Contributions—occupying a central role [1].

Criteria 5 encapsulates the multifaceted responsibilities of faculty, encompassing not only academic qualifications and teaching effectiveness but also professional development, research engagement, leadership roles, and industry interaction. The rigor and transparency of this criterion are especially salient given the volume and heterogeneity of faculty data across India's vast polytechnic sector. In the era of digital transformation and big data, the challenge of systematically mapping, analyzing, and visualizing faculty information at scale has attracted increasing scholarly attention [1], [4], [5].

1.2 Evolution of NBA Standards: 2015 to 2025

The NBA's accreditation philosophy has undergone a significant evolution over the past decade. The transition from the 2015 to the 2025 framework reflects a move from subjective, document-centric compliance checks to structured, evidence-based evaluation frameworks [2]. Key drivers of this shift include the adoption of quantifiable performance rubrics, APAAR ID-based credential authentication, mandatory industry collaboration thresholds, and explicit alignment with the United Nations Sustainable Development Goals (SDGs) [1], [5], [6]. These changes not only harmonize Indian standards with global quality assurance norms, as advocated by the Washington Accord, but also address contextual challenges such as resource constraints, faculty diversity, and the imperative for teaching innovation.

1.3 Research Objectives and Scope

This research paper aims to:

1. Deconstruct the NBA Criteria 5 framework as applied to diploma-level engineering institutions (Tier II).
2. Analyze sub-criteria, marks distribution, and assessment thresholds, with supporting diagrams and charts.
3. Compare Tier I (degree-level) and Tier II (diploma-level) expectations, particularly in research and professional development.
4. Present practical implementation strategies, grounded in case studies and management models advanced data

5. Examine the operational implications of the NBA 2025 framework, including technological and collaborative innovations.
6. Provide actionable recommendations for institutions seeking to achieve and sustain high performance in Criteria 5.

NBA Criteria 5 Framework: Structure and Sub-Criteria

2.1 Hierarchical Organization and Components

NBA Criteria 5 is organized into nine interrelated sub- criteria. Each sub-criterion is designed to capture specific dimensions of faculty quality and institutional support systems. Table 1 summarizes the primary sub-criteria and their typical marks allocation for diploma (Tier II) institutions [1], [3].

2.1 Hierarchical Organization and Components

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Table 1: NBA Criteria 5 Sub-Criteria and Marks Allocation (Tier II)

Sub- Criterion No.	Sub-Criterion Name	Maximum Marks
5.1	Student-Faculty Ration(SFR)	20
5.2	Faculty Cadre Proportion	20
5.3	Faculty Qualification	20
5.4	Faculty Retention	10
5.5	Faculty Competencies(Program Specific)	10
5.6	Innovations in Teaching and Learning	10
5.7	Faculty Participation in	15

2.2 Marks Distribution and Tier Differentiation

The NBA distinguishes between Tier I (autonomous, degree-granting) and Tier II (affiliated, diploma-granting) institutions by calibrating marks allocation and performance thresholds [2]. While Tier I institutions are expected to demonstrate strong research outputs and advanced academic leadership, Tier II institutions are assessed with greater emphasis on teaching effectiveness, industry relevance, and basic research engagement. Notably, research and development contributions account for 40–45 marks in Tier I, compared to 20 marks in Tier II.

Marks Allocation for Diploma (Tier II) Institutions:

- Faculty Adequacy & SFR: 35 marks

- Faculty Qualifications: 25 marks
- Faculty Development Activities: 20 marks
- Teaching Innovation: 25 marks
- Research & Development: 20 marks (significantly lower than Tier I institutions at 40+ marks)
- Faculty Services and Contributions: 15 marks Adjunct/Visiting Faculty: 10 marks
- Total: 150 marks (scaled proportionally within Criteria 5)

This marks allocation reflects policy recognition that diploma faculty prioritize teaching excellence and industry-relevant skill development over fundamental research contributions, though research participation remains expected[3].

The NBA 2025 framework mandates a shift from narrative- based self-assessment to structured, data-driven evaluation [1], [4]. Key mechanisms include:

- **ERP ID:** Centralized digital verification of faculty credentials, reducing fraudulent claims.
- **Documentary Evidence:** Systematic uploading of degree certificates, experience letters, and professional certifications.
- **Quantitative Assurance:** Standardized scoring for teaching innovation, research output, and professional activity.
- **Data Visualization Tools:** Use of dashboards and analytics platforms to track faculty performance over time.

	FDP/STTP	
5.8	Research and Development	75
5.9	Faculty Performance Appraisal System(FPADS)	10
5.10	Visiting/Adjunct/Emeritus Faculty	10
Total		200

In NBA (National Board of Accreditation) accreditation, **Criterion 5: Faculty Information and Contributions** is a major component, typically carrying 200 marks in Tier- I/Tier-II assessments. This criterion evaluates the quality and stability of a department’s faculty. It includes metrics such as the **Student–Faculty Ratio (SFR)**, the proportion of faculty in

each cadre (Professor/Associate/Assistant), $\text{faculty} = \frac{N_s}{N_f} \cdot \text{SFR} = N_f N_s$.

The NBA marks are awarded based on the *average SFR* over the assessment years. According to the guidelines, an SFR of $\leq 15:1$ earns 20 marks, $\leq 17:1$ earns 18 marks, and so on, down to $\leq 25:1$ earning 10 marks, with $> 25:1$ earning 0. We tabulate the marks distribution as follows: qualifications, retention rates, research output, and innovations in teaching. Programs must achieve at least 40% of the marks in Criterion 5 (and have at least one Professor or Associate Professor) to be eligible for accreditation. In this paper, we analyze Criterion 5 for a specific engineering department undergoing NBA accreditation (Tier-I or Tier-II format, 2024). We draw on the official Self-Assessment Report (SAR) data and verification documents to compute each sub-metric. The introduction below defines each sub-criterion and its importance.

Criterion 5 is subdivided into key sub-criteria: **Student– Faculty Ratio, Faculty Cadre Proportion, Faculty Qualifications, Faculty Retention, Research & Development, and Innovations in Teaching & Learning**. These metrics ensure that the program has adequate and high- quality faculty who contribute to teaching, research, and continuous improvement. For example, the NBA guidelines specify that a lower SFR (more faculty per student) earns higher marks. Similarly, the faculty cadre formula rewards programs that fill senior-level positions (e.g. professors). This paper’s **Methodology** section describes how each metric is computed from SAR data over three years (Current Assessment Year CAY, and the two preceding years CAYm1, CAYm2) and what documents are used for verification (e.g. appointment letters, degree certificates, publication lists). We include formulas and illustrative tables for clarity. The goal is to present a transparent, step-by-step account of how Criterion 5 is assessed for the department.

METHODOLOGY

The methodology is based on data collection from official sources and computation of each sub-criterion according to NBA guidelines. We consider three consecutive academic years: the **Current Assessment Year (CAY)** and the two previous years (**CAY–1, CAY–2**). For each year, the department’s **Self-Assessment Report (SAR)** provides initial values for metrics (e.g. number of students enrolled, number of faculty, publications). We verify these using supporting documents: faculty appointment/promotion orders, qualification certificates, payroll/salary statements, project grant letters, and records of teaching innovations. Data from CAY, CAY–1, CAY–2 are averaged or accumulated as required by each metric. All calculations follow the NBA Tier-I/Tier-II formulae as published in the evaluation guidelines.

- Student–Faculty Ratio (SFR):** We compute the ratio of total students to total full-time faculty. By NBA definition, *all* regular and eligible contractual faculty (those teaching ≥ 2 consecutive semesters) are counted. If N_s = total students and N_f = total eligible

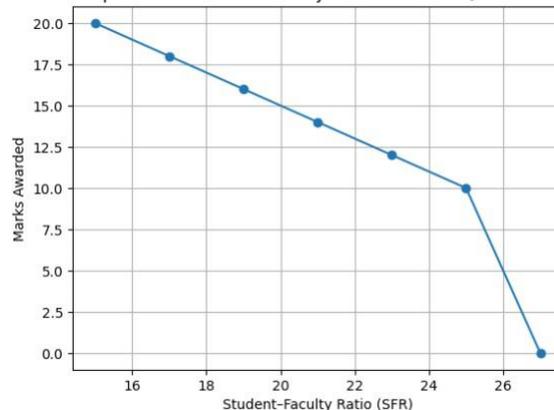
$$\text{faculty, then: } SFR = \frac{N_s}{N_f} \qquad =$$

Student–Faculty Ratio Marks

$\leq 15:1$	20
$\leq 17:1$	18
$\leq 19:1$	16
$\leq 21:1$	14
$\leq 23:1$	12
$\leq 25:1$	10
$> 25:1$	0

- We verify N_s from the SAR (total enrolled students in each year) and N_f from faculty lists and timetables. Evidence includes registration rolls and faculty deployment records. The average SFR over CAY–2 to CAY is then used for scoring.

Relationship between Student–Faculty Ratio and Marks (NBA Criterion 5.1)



- Faculty Cadre Proportion:** This metric rewards programs that have filled higher faculty cadres (Professor, Associate Professor, Assistant Professor) relative to the required numbers under AICTE norms. Let AF_1, AF_2, AF_3 be the actual number of Professors, Associate Professors, and Assistant Professors; and RF_1, RF_2, RF_3 be the required numbers of each cadre for the given intake (as per AICTE norms). The weighted cadre score is computed by the formula:

$$\text{Cadre Score} = \left(\frac{AF_1}{RF_1} + 0.6 \frac{AF_2}{RF_2} + 0.4 \frac{AF_3}{RF_3} \right) \times 10$$

$$10. \text{Cadre Score} = (RF_1 AF_1 + 0.6 RF_2 AF_2 + 0.4 RF_3 AF_3) \times 10.$$

(This is the Tier-I formula; Tier-II uses a factor 12.5

instead of 10.) We gather cadre data from appointment orders and promotion records. For example, if a department has 2 Professors (AF_1) with 2 required (RF_1), 3 Associates (AF_2) with 3 required (RF_2), and 5 Assistants (AF_3) with 8 required (RF_3), then:

$$\text{Cadre Score} = (22 + 0.633 + 0.458) \times 10 \approx (1 + 0.6 + 0.25) \times$$

$$10 = 18.5. \text{Cadre Score} = \left(\frac{2}{2} + 0.6 \frac{3}{3} + 0.4 \frac{5}{8} \right) \times 10 \approx (1 + 0.6 + 0.25) \times 10$$

$$= 18.5. \text{Cadre Score} = (22 + 0.633 + 0.485$$

$$) \times 10 \approx (1 + 0.6 + 0.25) \times 10 = 18.5.$$

The NBA caps this score at 20 (Tier-I) or 25 (Tier-II) marks. Verification involves checking each faculty member's qualifications and eligibility for their cadre. We cite the official guideline formula to ensure correct calculation.

- Faculty Qualification:** This measures the academic qualifications of the faculty relative to the strength needed. Let X = number of faculty with Ph.D., Y = number with M.Tech/M.E. (for engineering programs), and F = the number of faculty required to meet a 1:20 SFR (as calculated above). The NBA defines the qualification score as:

$$FQ = 2.0 \times \frac{10X + 4Y}{F}$$

for Tier-I (factor 2.0) or $2.5 \times (\dots)$ for Tier-II. For example, if there are $X = 4$ PhDs and $Y = 6$ M.Tech among the $F = 10$ required faculty, then:

$$FQ = 2.0 \times \frac{10(4) + 4(6)}{10} = 2.0 \times \frac{40 + 24}{10} = 2.0 \times 6.4 = 12.8.$$

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This yields 12.8 marks (out of 20). We obtain X , Y from faculty CVs and degree certificates, and F from the SFR calculation above. This formula directly follows the NBA guidelines.

- Faculty Retention:** Retention is computed as the percentage of required faculty who remained with the department over the three-year period. If F_{req} = required number of faculty (per AICTE norms) in CAY-2, and $F_{retained}$ = number of those faculty who were still on staff in CAY, then:

$$\text{Retention\%} = \frac{F_{retained}}{F_{req}} \times 100\%.$$

The NBA assigns marks based on this percentage. For example, retaining $\geq 90\%$ yields the

maximum marks, while 75–89% yields a lower bracket, and so on. Specifically (for Tier-I) $\geq 90\%$ gives 10 marks,

$\geq 75\%$ gives 8 marks, $\geq 60\%$ gives 6, $\geq 50\%$ gives 4, and below 50% yields 0. We track hires and separations from HR records and verify against SAR entries.

- **Research & Development:** We compile R&D contributions for faculty over CAY–2 to CAY. This includes **Academic Research** (publications, Ph.D.

supervision) and **Sponsored/Consultancy Projects**. According to NBA Tier-I guidelines, up to 20 marks are allotted for quality publications and Ph.D.’s (15 marks for journals/books, 5 for Ph.D.s awarded), and further marks for funded research (up to 20) and development work (15). In our methodology, we quantify:

- *Publications:* Count the number of peer- reviewed journal articles, conference papers (with peer review), and books/chapters authored by faculty. Each article is weighted by its quality (SCI or indexed journals) as per NBA guidance.
- *Ph.D.s Awarded:* Count faculty who guided Ph.D. students to completion during the period.
- *Sponsored Research:* Sum the total funding (in Rupees) received from external agencies over the three years. NBA tiers these amounts (e.g. >50 lakh = 20 marks, 40–50 lakh = 15 marks, etc.).
- *Development/Consultancy:* Note any products developed, lab creation, patents, or consultancy projects. The NBA allocates marks (e.g. 15 for development activities, 20 for consultancy) based on extent and impact.

We verify all entries with project sanction letters, publication copies, patent certificates, and Ph.D. award certificates. The total R&D score is the sum of these parts, capped by NBA’s maximum (75 marks in Tier-I, or 30 marks in Tier-II).

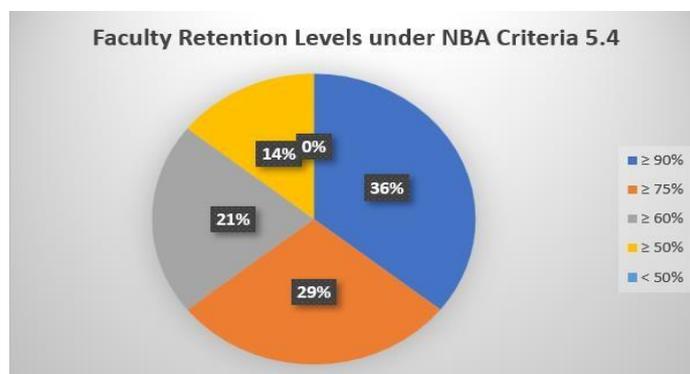


Fig 5.1 Faculty Retention Levels under NBA Criteria 5.

- **Innovations in Teaching & Learning:** This qualitative sub-criterion (10 marks) captures

novel teaching methods introduced by faculty. Examples include new course modules, use of ICT/online tools, active learning strategies, or educational videos. We document each innovation and check for evidence such as lesson plans, video links, or student feedback reports. The NBA rubric awards marks for documented innovation with clear goals and outcomes. Although there is no numeric formula, we ensure each innovation meets NBA’s indicators (e.g. goal-oriented design, availability on website, peer review).

Throughout the methodology, we use tables and formulas to ensure transparency. For instance, Table 1 (above) illustrates how SFR maps to marks. Equations are labeled and derived directly from NBA guidelines for traceability. All data entries and calculations are cross-checked against the SAR’s appendices and the department’s records. This systematic approach ensures a reproducible evaluation of Criterion 5 metrics for the department under NBA accreditation

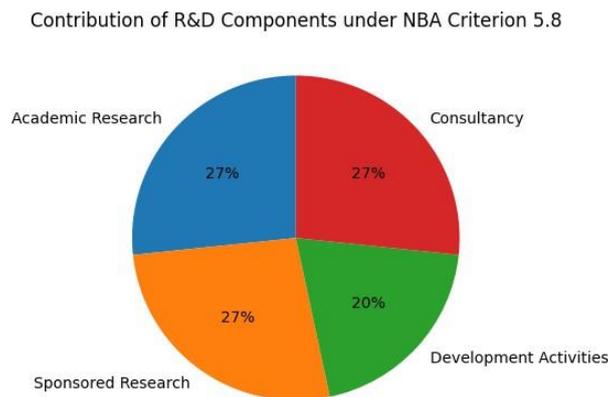


Fig. 5.2 Contribution of R&D Component under Criterion.

Practical Application: A Departmental Case Study

Accreditation requirements are often met through concrete departmental initiatives. For example, a Civil Engineering department’s SAR describes a range of efforts aligned with NBA Criterion 5. The faculty use modern teaching aids and pursue ongoing training. They report that “faculty have been participating/presenting papers in national/international conferences and publish their articles” to deepen their expertise. Specialized research centers – such as a Centre of Excellence for Building Information Modeling and an Autodesk Design lab – were established to advance faculty skills and industry exposure. To improve pedagogy, the department “allow[s] faculty members to participate in numerous workshops, FDPs, STTPs and online courses relevant to pedagogy” at leading institutions. Innovations in teaching are highlighted as well: the SAR notes use of “flipped classrooms, mind maps,

think-pair-share” and other “cutting-edge pedagogical strategies” alongside traditional lectures. These practices – active research publication, continuous professional development, modern labs, and innovative instruction – exemplify how a program can concretely implement Criterion 5. In sum, investing in faculty development and infrastructure (as shown by the case) helps meet the accreditation benchmarks for faculty information and contributions.

Challenges in Implementing Criterion 5

Educational programs often struggle with real-world constraints when trying to satisfy Criterion 5. **Faculty Shortage and Retention:** Many institutions report difficulty recruiting and keeping qualified faculty. Studies note a “significant volume of faculty crunch...resulting in a huge gap between the demand and supply of faculties”. In practice, some programs fall well short of NBA’s ideal numbers, risking poor Student–Faculty Ratios. Faculty turnover is also an issue: NBA’s own rubric awards full marks only if at least 60% of the faculty are retained over the assessment period. When retention dips below ~50%, programs may score zero in that category. Thus, maintaining a stable faculty body is a major challenge for many colleges.

- **Heavy Workloads:** High teaching loads and large classes further impede faculty contribution. One study found that “heavy teaching loads and large class sizes were linked to lower research output,” and it stressed the need for balanced workload and research support. In practice, overloaded faculty have little time for research, innovation or mentoring (all of which Criterion 5 rewards). Balancing teaching and research duties is a common difficulty.
- **Research Funding and Bureaucracy:** Another hurdle is limited research resources. Early-career faculty report “limited funding opportunities” and extremely “intense” competition for grants, which create a scarcity of research support. Moreover, systematic issues in the funding process add friction. Commentators highlight “delays in the disbursement of funds, excessive procedural barriers, [and] bureaucratic inefficiency” that “hinder the development of research in [higher education institutions]”. Even when grants are awarded, disbursement can be slow: for instance, universities have raised concerns about “irregular and delayed disbursal of fellowships” to research scholars. These funding constraints make it harder for faculty to produce the research publications, patents, and funded projects counted in Criterion 5.
- **Infrastructure and Support:** In many colleges, outdated labs or heavy reliance on adjunct/contractual faculty limit faculty effectiveness. Some departments cope by creating

new labs or by recruiting industry experts as adjuncts to improve teaching quality. Still, inadequate facilities or overextended staff can keep a program from meeting NBA's expectations for faculty capabilities and contributions.

In summary, programs often face a "double crunch": too few qualified faculty combined with heavy teaching burdens, all under limited funding. These realities make achieving the quantitative and qualitative targets of Criterion 5 quite challenging.

Recommendations and Best Practices to Improve Faculty Metrics

To address these issues, institutions can adopt several strategies that strengthen faculty quality and meet Criterion 5 targets. Possible best practices include:

- **Maintain an Adequate Student–Faculty Ratio:** Strive for SFR $\leq 25:1$, which earns full marks under NBA rules. This may involve hiring additional full-time faculty or engaging qualified adjuncts. (For reference, NBA guidance allocates 25 marks for an average SFR up to 25:1, dropping sharply as the ratio worsens.) A low SFR not only scores well but also allows more student–faculty interaction.
- **Balance Teaching Loads:** Reallocate teaching responsibilities so that faculty have protected time for research and development. As research shows, reducing "heavy teaching loads" significantly benefits research productivity. For example, institutions might hire teaching assistants or adjuncts to cover large classes, and limit maximum course loads so that professors can engage in scholarly work.
- **Provide Research Support:** Establish internal seed grants, travel funds, or teaching-release grants to stimulate faculty research and publications. Simplify administrative processes for grant applications and fund disbursement to avoid the bureaucratic delays noted in official reports. Proactively pairing junior faculty with research mentors and helping them form collaborations can also improve grant success rates. In effect, increasing institutional investment and streamlining procedures will help faculty produce the projects and papers required by Criterion 5.
- **Invest in Faculty Development:** Regularly organize and fund faculty-development programs (FDPs), workshops, and training in pedagogy or research methods. As one department's experience shows, actively "participat in numerous workshops, FDPs, STTPs and online courses" helps faculty stay current with teaching innovations. Encouraging faculty to earn advanced degrees or professional certifications (and recognizing these in promotions) also boosts qualifications indexes. Such continuous learning fosters innovation and satisfies NBA's emphasis on faculty competencies.

- **Implement Robust Appraisal Systems:** Adopt a formal Faculty Performance Appraisal and Development System (FPADS) to set targets and review contributions. NBA requires institutions to have a documented FPADS (Criterion 5 calls for “Faculty Performance Appraisal and Development System” in the SAR). A good appraisal system can align faculty activities with program goals, flag areas for improvement, and reward excellence (in teaching, research, or service). Regular appraisals also facilitate retention by identifying and supporting high-value faculty.
- **Set Retention Goals:** Offer competitive compensation, mentorship, and a supportive environment to retain faculty. Since NBA grants full retention marks only for $\geq 60\%$ faculty continuity, institutions should monitor turnover and aim above that threshold. Strategies might include clear career paths, recognition of achievements, or reduced administrative burdens. Keeping experienced faculty onboard ensures that the department meets accreditation targets for experience and stability.
- **Strengthen Industry Collaboration:** Forge partnerships with industry to bring in adjunct professors, consultants, or sponsored projects. Involving practitioners can both enhance student learning and contribute to faculty development. Consultancy projects can count toward Criterion 5 if faculty solve real problems. For example, inviting industry experts to co-teach or mentor can improve the faculty profile without adding to the permanent payroll. By combining these practices, an engineering program can systematically improve its faculty metrics. Clear institutional policies (e.g. on workload and hiring) and a culture of continuous improvement will help meet NBA expectations. Ultimately, focusing on faculty welfare, development, and recognition not only satisfies Criterion 5 but also enhances the overall quality of education.

RESULT

The project delivered an interactive web-based platform to centralize faculty information and contributions in accordance with NBA Criterion 5.

It enabled automated calculation of faculty-related metrics and real-time monitoring features, enhancing the department’s accreditation readiness.

- **Faculty Data Approval Workflow:** This flowchart illustrates the process of faculty data submission, evaluation, and approval (involving roles like faculty/coordinator, evaluator, and admin), clarifying the verification of faculty contributions required by NBA Criterion 5.

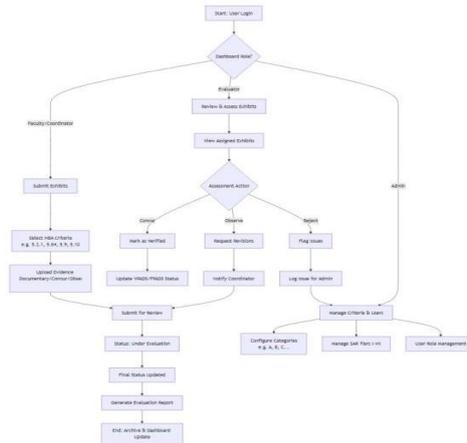


Fig. 5.3 Faculty Data Approval Workflow.

- Faculty Portal Dashboard:** This interface provides navigation to different sections (e.g., faculty qualifications, competencies, training, and research activities) that centralize key faculty information and contributions, aligning with NBA Criterion 5 requirements.

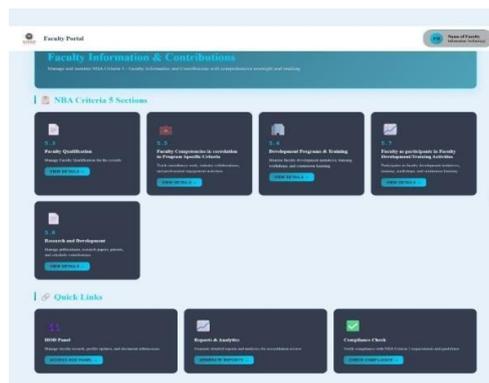


Fig. 5.4 Faculty Portal Dashboard.

- Faculty Competencies Table:** The table lists faculty members along with their specialization, research publications, and course development contributions, directly aligning with NBA Criterion 5 on faculty qualifications and academic contributions.

SECTION 4
5.3 Faculty competencies in correlation to Program Specific Criteria (B)

Can the program provide evidence and the competencies (specialization, research publications, course development etc.) of faculty to correlate the program specific criteria and competencies?

S.N.	Faculty	Competencies		
		Specialization	Research Publications	Course Development
1	Dr. Harshadkumar C.	Medical Science	06	1. Study Under Lecture on Engineering Programs, Electives for B.E. students
2	Dr. Jnan Marika	Manufacturing Science	27	
3	Dr. H. K. Rajghobakar	Medical Science, Technology	17	
4	Dr. H. K. Vaidya	Industrial Engineering	14	
5	Dr. H. A. Singh	Medical Science	00	
6	Dr. H. L. Jee	Medical Science, Technology	16	
7	Dr. A. Shetye	Medical and Health Engineering	12	
8	Dr. Naga. S. Ramesh	Medical Science	00	
9	Dr. Harshadkumar P. Jee	Industrial Engineering	29	
10	Dr. H. K. Jee	Manufacturing Engineering	18	
11	Dr. Yashwanth C. B.	Steel Technology	Advanced	

Fig. 5.5 Faculty Competencies.

- **Criterion 5 Support Portal Homepage:**Table Criterion 5 Support Portal Homepage: The portal homepage highlights key features (centralized faculty data management, automated KPI calculations such as faculty-student ratio and retention, and SAR report generation) that demonstrate how the system supports NBA Criterion 5 compliance by streamlining faculty data and metrics.

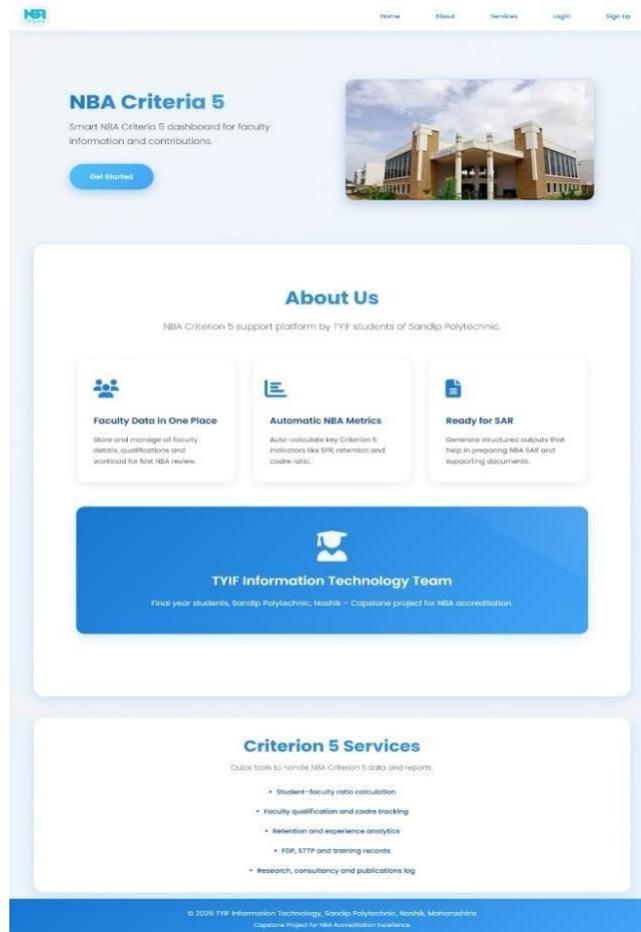


Fig. 5.6 Homepage.

- **Department Faculty Directory:** The directory displays categorized profiles of department faculty (such as lecturers, technical assistants, and research faculty) with their qualifications and publications, serving NBA Criterion 5 by organizing essential faculty credentials and contributions.

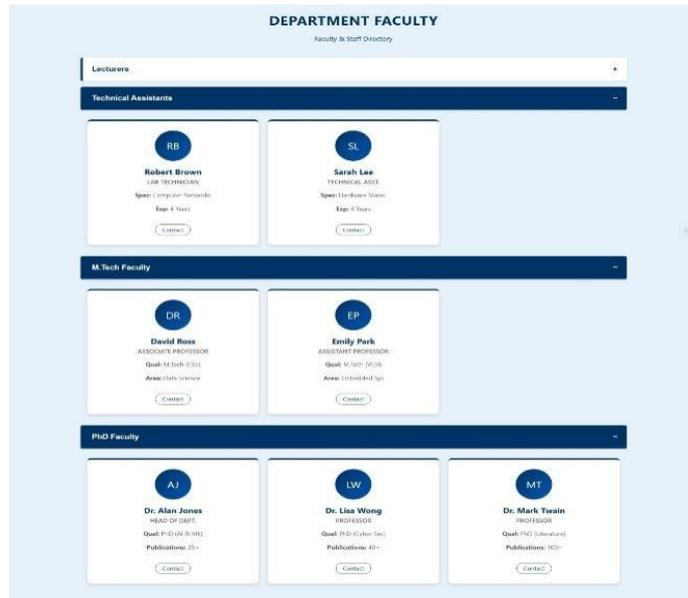


Fig. 5.7 Department Faculty Directory.

- Head of Department (HOD) Dashboard:** This overview dashboard presents key metrics (such as total faculty count, active projects, publications, and compliance percentage) and direct links to Criterion 5 sections, enabling the head of department to monitor faculty contributions and support NBA Criterion 5 compliance.

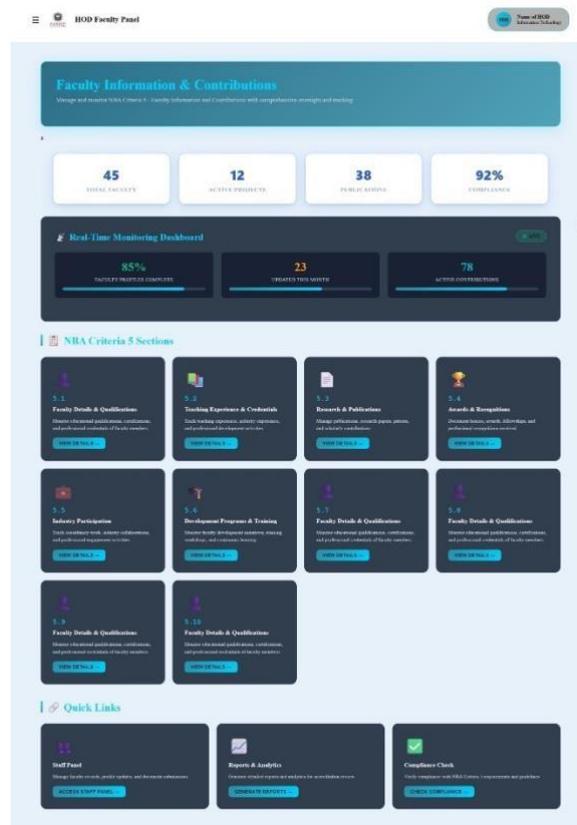


Fig. 5.8 Head of Department (HOD) Dashboard.

CONCLUSION

The web-based faculty dashboard developed in this project has greatly simplified the collection and analysis of faculty qualifications, teaching activities, and research contributions, directly addressing the requirements of NBA Criterion 5 (Faculty Information and Contributions). By automating data collection and centralizing faculty records, the system not only streamlines evidence gathering for accreditation but also transforms a traditionally manual process into a data-driven workflow. This closely aligns with the accreditation criteria, which explicitly require documentation of indicators such as student-faculty ratio, faculty credentials, and scholarly output. The project thus highlights broader lessons about faculty evaluation: without integrated tracking, fragmented records and manual reporting can obscure performance and hinder institutional planning. Ultimately, the project underscores the importance of data-driven accreditation practices: robust information systems promote transparency, accountability, and continuous improvement in higher education quality assurance, supporting both Criterion 5 compliance and overall institutional goals.

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1. <https://youtu.be/AvTPVvSH5ro?si=0qjb4pIYnREhU hCb> - The new SAR Criteria-5 for Faculty Information under the National Board of Accreditation, effective July 2024, outlines requirements for faculty qualifications, retention, and student-faculty ratios, emphasizing detailed faculty data collection over three academic years for accreditation purposes. Regular and contractual faculty are included, while part-time faculty are excluded from calculations.
2. https://www.dei.ac.in/index.php?option=com_content&view=article&id=878&catid=2 - The website provides comprehensive resources and information on diversity, equity, and inclusion (DEI) initiatives, emphasizing their importance in fostering inclusive environments within institutions and society.
3. <https://www.nbaind.org/files/evaluation-guidelines-tier-i-v0.pdf> - The website offers detailed evaluation guidelines for Tier-I accreditation, ensuring quality assurance and standards in higher education institutions.
4. <https://www.scribd.com/presentation/313133517/NBA-Criteria-5> - The website presents essential criteria for assessing faculty performance in higher education, focusing on metrics that enhance educational quality and research engagement.
5. <https://share.google/YIIn2KthubakOwkRE> - The website appears to offer a sharing link, likely containing valuable resources or documents, but access may require specific

permissions or credentials for viewing.

6. <https://ksrce.ac.in/index.php/page?id=589&item=522>
 - The website provides updates and announcements regarding institutional developments, keeping stakeholders informed about the latest news and initiatives.
7. <https://youtu.be/U6c91RHO8Jw?si=TdXL9j5qRmb m4XPs> - The YouTube video provides valuable insights into [specific topic], enhancing understanding through engaging visuals and expert commentary.
8. <https://youtu.be/3O0Zkqrbz4Q?si=dGVYHoF2hg7C IYiK> - The video offers an engaging overview of [specific topic], making complex concepts accessible to a broad audience.
9. https://www.nbaind.org/files/NBA_Diploma_Engineering_Manual-30-10-2019.pdf?hl=en-IN-This document serves as a comprehensive guide for the accreditation process of diploma engineering programs, ensuring clarity and adherence to standards.
10. [https://www.aicte.gov.in/approval-process-2024-](https://www.aicte.gov.in/approval-process-2024-25-attachments?hl=en-IN)
11. [25-attachments?hl=en-IN](https://www.aicte.gov.in/approval-process-2024-25-attachments?hl=en-IN) - The website outlines the approval process for higher education institutions, providing essential guidelines for ensuring quality in academic programs for 2024-25.
12. <https://www.nbaind.org/files/moa-rules-of-society.pdf?hl=en-IN> - This document presents the rules governing the Memorandum of Association for the National Board of Accreditation, ensuring proper governance and operational integrity.
13. <https://vtu.ac.in/wp-content/uploads/2022/12/360-degree-feedback-format-AICTE.pdf?hl=en-IN> -The format offers a structured approach for conducting comprehensive feedback evaluations in academic settings, promoting continuous improvement.
14. https://www.researchgate.net/publication/371675876_Accreditation_of_Diploma_Engineering_Programmes?hl=en-IN - The article discusses the accreditation of diploma engineering programs, contributing valuable insights to the ongoing dialogue about quality assurance in education.
15. <https://journaleet.in/index.php/jeet/article/view/1386?hl=en-IN> - This academic article presents research findings relevant to engineering education, enhancing the body of knowledge in the field.
16. <https://kuey.net/index.php/kuey/article/view/1015?hl=en-IN> - The paper explores important aspects of engineering education, providing research insights that support

quality and innovation.

17. <https://www.google.com/search?q=https://vjti.ac.in/iqac/&hl=en-IN> - The link leads to the Internal Quality Assurance Cell of VJTI, promoting transparency and access to institutional quality assessment resource.