

NBA and NAAC Accreditation: A Roadmap for UG Engineering Institutions in India

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Abstract - Accreditation plays a crucial role in maintaining and enhancing the quality of higher education institutions. This paper explores study of two major accreditation systems in India—the National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA). The study examines their objectives, assessment criteria, processes and impact on institutional holistic development. It also highlights the challenges faced during accreditation process and provides adjuration for improving quality assurance in Indian higher education. By integrating insights from multiple studies, this paper offers a detailed exploration of how accreditation influences academic quality, faculty development, industry collaborations, and overall institutional growth.

Keywords - Accreditation, NAAC, NBA, HEI Development, Academic Quality, Outcome-Based Education, Quality Assurance.

I. INTRODUCTION

Accreditation serves as a fundamental pillar of quality assurance in higher education, ensuring that institutions adhere to well-defined academic and infrastructural standards. Across the globe, accreditation frameworks are established to evaluate the effectiveness of educational institutions in delivering high-quality teaching, research, and overall institutional performance. In the Indian context, two primary accreditation bodies, the National Assessment and Accreditation Council (NAAC) and the National Board of Accreditation (NBA), play a crucial role in maintaining and enhancing academic excellence.

NAAC, established under the University Grants Commission (UGC) in 1994, primarily focuses on assessing the overall institutional performance of universities and colleges. Its evaluation encompasses a broad range of parameters, including governance, faculty qualifications, research output, student outcomes, and infrastructural facilities. By taking a holistic approach, NAAC aims to ensure that institutions foster an environment conducive to academic growth and institutional development.

On the other hand, NBA, which operates under the All India Council for Technical Education (AICTE), evaluates individual academic programs rather than entire institutions. NBA emphasizes an outcome-based education (OBE) model, where the quality of a program is determined by its ability to equip students with relevant knowledge, skills, and competencies required for industry and research excellence. NBA accreditation, particularly for engineering and technical education programs, aligns with the international Washington Accord, making it globally recognized.

The distinction between NAAC and NBA accreditation frameworks highlights the diverse approaches taken toward quality assurance in higher education. While NAAC accreditation evaluates institutional integrity and governance, NBA accreditation ensures that specific academic programs meet national and international educational standards. Understanding the similarities, differences, and effectiveness of these two accreditation systems is essential for enhancing the quality of Indian higher education.

This study aims to analyze their methodologies, identify their strengths and weaknesses, and propose suggestions for enhancing the accreditation

for UG Engineering Programmes / Colleges. By examining the impact of NAAC and NBA on academic quality and institutional development, this study provides insights into how accreditation can serve as a catalyst for continuous improvement and global competitiveness in Indian higher education institutions.

II. ACCREDITATION SYSTEMS IN INDIA

National Assessment and Accreditation Council (NAAC)

Founded in 1994, NAAC evaluates HEIs based on seven key criteria:

- Curricular Aspects – Ensures a well-structured and updated curriculum that aligns with industry and research needs.
- Teaching-Learning and Evaluation – Assesses teaching methodologies, student engagement, and evaluation techniques.

- Research, Consultancy, and Extension – Evaluates research output, consultancy services, and community engagement.
- Infrastructure and Learning Resources – Examines the adequacy of classrooms, laboratories, libraries, and IT facilities.
- Student Support and Progression– Focuses on student services, career guidance, and alumni network strength.
- Governance, Leadership, and Management – Reviews institutional policies, governance structures, and decision-making processes.
- Innovations and Best Practices – Recognizes innovative teaching methods, sustainable practices, and institutional improvements.
- NAAC assigns institutions a grade on a 4-point scale, ranging from A++ to D, based on institutional performance across these criteria.
- NAAC has categorized the Higher Educational Institutions into three major types (University, Autonomous College, and Affiliated/Constituent College).

Table 1 Criterion-wise differential weightages for the three major types of HEIs

Sr. No.	Criteria	HEI			
		University	Autonomous College	Affiliated/ Constituent College	
				UG	PG
1	Curricular Aspects	150	150	100	100
2	Teaching-learning & Evaluation	200	300	350	350
3	Research, Innovations & Extension	250	150	110	120
4	Infrastructure & Learning Resources	100	100	100	100
5	Student Support & Progression	100	100	140	130
6	Governance, Leadership & Management	100	100	100	100
7	Institutional Values & Best Practices	100	100	100	100
Total		1000	1000	1000	1000

NAAC Reforms 2024- Binary Accreditation

Binary Accreditation proposed by NAAC may have binary accreditation as either Accredited (for two years), Provisionally Accredited for a period of one year or Not Accredited If the HEI is not accredited, and they can again apply to NAAC after a period of

six months. The institutions which are provisionally accredited for a period of one year, may again apply to NAAC for getting the accreditation status after complying all the suggestions provided in the report.

Table 2 Proposed Binary Accreditation-University/Colleges

Sr. No.	Attributes	Input/ Process / Outcomes
1	Curriculum Design	Input
2	Faculty Resources	
3	Infrastructure	
4	Financial Resources & Management	
5	Learning & Teaching	Process
6	Extended Curricular Engagements	
7	Governance and Administration	
8	Student Outcomes	Outcome
9	Research & Innovation Outcomes	
10	Sustainability Outcomes (Including Green Initiatives)	

National Board of Accreditation (NBA)

Established in 1994 and restructured in 2010 as an autonomous body, NBA accredits specific academic programs rather than entire institutions. The assessment is based on ten parameters:

- Vision, Mission & Program Educational Objectives – Defines the purpose and expected outcomes of the program.
- Program Outcomes – Measures skills and competencies students acquire upon graduation.
- Program Curriculum and Teaching-Learning Processes – Evaluates the alignment of curriculum with industry and academic expectations.
- Student Performance – Assesses graduation rates, employability, and overall student achievements.
- Faculty Contributions – Reviews faculty qualifications, research publications, and professional development.
- Facilities and Technical Support– Examines laboratories, computing facilities, and infrastructure adequacy.
- Continuous Improvement – Ensures regular updates to curricula and teaching methods based on feedback.
- First-Year Academics – Assesses foundational courses and their effectiveness in preparing students.
- Student Support Systems – Evaluates mentoring, counselling, and extracurricular opportunities.
- Governance and Financial Resources – Analyzes institutional policies, leadership effectiveness, and financial management. Programs are granted accreditation for either three or six years based on scores out of 1000 points.

Table 3 Accreditation Criteria Marks Distribution

Sr. No.	Criteria	Tier-I	Tier-II
Program Level Criteria			
1	Vision, Mission and Program Educational Objectives	50	60
2	Program Curriculum and Teaching – Learning Processes	100	120
3	Course Outcomes and Program Outcomes	175	120
4	Student's Performance	100	150
5	Faculty Information and Contributions	200	200
6	Facilities and Technical Support	80	80
7	Continuous Improvement	75	50

Institution Level Criteria			
8	First Year Academics	50	50
9	Student Support Systems	50	50
10	Governance, Institutional Support and Financial Resources	120	120
Total		1000	1000

Tier-I institutions are academically autonomous, while Tier-II institutions are affiliated to universities.

Benefits and Significance of Accreditation

Accreditation is a tool that stakeholders use to monitor, assess and evaluate the standards and quality of the education a student receives at a college, university or other institution of higher learning.

NAAC

- Institution to know its strengths, weaknesses, and opportunities through an informed review process.
- Identification of internal areas of planning and resource allocation
- Collegiality on the campus.
- Funding agencies look for objective data for performance funding.
- Institutions to initiate innovative and modern methods of pedagogy.
- New sense of direction and identity for institutions.

- The society look for reliable information on quality education offered.

- Employers look for reliable information on the quality of education offered to the prospective recruits.

- Intra and inter-institutional interactions.

NBA

- Accredited institution / program offers the highest quality education available;

- Accredited institution / program strengthens consumer's confidence, employers value degrees of an accredited program the most;

- Accreditation helps institutions to know their strengths, weaknesses and opportunities, pushes them to continuously improve their programs and give them a new sense of direction, identity and targets; and

- Accredited institution / program demonstrate accountability to the public, commitment to excellence and continuous quality improvement.

Key Differences

Table 4 Key Differences

Aspects	NAAC	NBA
Focus	Institution-wide evaluation	Program-level evaluation
Criteria	7 broad criteria	10 program-specific criteria
Accreditation Period	5 years	3 or 6 years
Scoring System	Grades (A++ to D)	Score out of 1000
Governing Body	UGC	AICTE
Industry Relevance	Broad academic assessment	Outcome-based education and industry alignment

Assessment Methodology

The assessment methodologies of NAAC and NBA differ significantly in their approach to evaluating higher education institutions.

NAAC Assessment Methodology

NAAC follows a multi-stage evaluation process that includes:

- Institutional Self-Study Report (SSR): Institutions must submit a detailed SSR containing qualitative and quantitative metrics across seven

key criteria. This report is crucial as it provides comprehensive data about the institution's curriculum, governance, research, faculty, infrastructure, and student outcomes.

- Data Validation and Verification (DVV): A pre-evaluation process where the submitted data undergoes rigorous validation by NAAC. This includes cross-checking institutional records, publicly available information, and direct communication with stakeholders.
- Peer Team Visit: A team of academic experts appointed by NAAC conducts on-site

inspections to evaluate the institution's performance. They engage in discussions with faculty, students, and administrative staff and assess facilities such as laboratories, libraries, and research centers.

- Grading and Accreditation Decision: Based on the data collected, institutions receive a cumulative grade on a 4-point scale (A++ to D). The accreditation status remains valid for five years, after which institutions must undergo re-evaluation.

Table 5 Institutional Grades and Accreditation Status

Range of Institutional Cumulative Grade Point Average (CGPA)	Letter Grade	Status
3.51-4.00	A++	Accredited
3.26-3.50	A+	Accredited
3.01-3.25	A	Accredited
2.76-3.00	B++	Accredited
2.51-2.75	B+	Accredited
2.01-2.50	B	Accredited
1.51-2.00	C	Accredited
≤ 1.50	D	Not Accredited

NAAC focuses on institutional culture, governance, and long-term academic development, making it a comprehensive assessment of an institution's overall quality.

NBA Assessment Methodology

NBA employs an Outcome-Based Education (OBE) framework, focusing on measurable student achievements and industry readiness. The accreditation process involves:

- Self-Assessment Report (SAR): Institutions submit detailed data on program-specific metrics such as faculty qualifications, research contributions, industry collaborations, student learning outcomes, and graduate employability.
- Performance Indicators: NBA evaluates programs based on Program Outcomes (POs) and Program Educational Objectives (PEOs),

measuring graduates' competencies in problem-solving, technical skills, and professional ethics.

- On-Site Evaluation: A peer review team assesses faculty teaching methods, curriculum alignment with industry needs, laboratory facilities, and student performance trends. NBA also conducts direct interviews with alumni and employers to assess the program's real-world impact.
- Scoring and Accreditation: NBA assigns a score out of 1000. Programs that score 600-749 points receive accreditation for three years, while those scoring 750+ receive accreditation for six years.

Table 6 Scoring and Accreditation

Points in aggregate	Accreditation Period
Less than 600	Not Accredited
600-749	3 Years
750 & above	6 Years

Unlike NAAC, NBA does not accredit entire institutions but evaluates programs individually, ensuring that each meets specific industry and global educational standards.

Impact on Institutional Holistic Development

Accreditation significantly influences institutional growth, shaping curriculum development, faculty enhancement, research opportunities, and overall academic performance.

Quality Assurance and Continuous Improvement

- NAAC encourages institutions to improve teaching methods, research output, and governance structures through periodic assessments.
- NBA promotes an Outcome-Based Education (OBE) model, pushing engineering and technical programs to focus on skill development, employability, and industry needs.

Research and Industry Collaboration

- NBA's accreditation process mandates industry partnerships, leading to more internships, industry-sponsored projects, and faculty collaborations with corporate sectors.
- NAAC emphasizes research output, motivating institutions to increase publications, research funding, and interdisciplinary studies.

Global Recognition and Academic Mobility

- NBA accreditation aligns with the Washington Accord, enabling Indian engineering graduates to receive global recognition in 20+ countries.
 - NAAC accreditation enhances an institution's credibility in national rankings (NIRF) and international collaborations, attracting funding and student enrolment.
- Institutional Autonomy and Government Funding

- Institutions with higher NAAC grades (A+, A++) qualify for autonomy under UGC guidelines, allowing them to introduce new courses, design curriculum, and manage finances with less regulatory interference.
- NBA accreditation is often required for government grants and funding under RUSA (Rashtriya Uchchatar Shiksha Abhiyan), supporting infrastructure development and faculty training programs.

Challenges and Limitations

Despite their benefits, NAAC and NBA accreditation processes face several challenges:

Administrative Burden and Compliance Costs

- Preparing self-study reports, maintaining documentation, and meeting accreditation standards require substantial time, financial resources, and administrative effort.

- Smaller institutions, especially in rural areas, struggle to allocate resources for accreditation procedures.

Industry Alignment and Curriculum Gaps

- While NBA accreditation emphasizes industry partnerships, many accredited institutions fail to implement real-world skill training in their curriculum.

- NAAC's assessment not measures employability outcomes more effectively, leading a gap between academic excellence and job market readiness.

Frequent Policy Changes and Reaccreditation Issues

- Institutions must frequently revise policies, upgrade faculty training, and implement new teaching-learning processes to comply with evolving accreditation norms.

- The five-year (NAAC) and three/six-year (NBA) validity periods create continuous pressure for reassessment, leading to institutional fatigue.

5. Adjuration for Improving Accreditation Systems

This study explores all aspects of accreditation and makes the following suggestions to enhance the effectiveness of NAAC and NBA accreditation for UG Engineering Programmes / College.

In this study after exploring all the aspects of accreditation to enhance the effectiveness of NAAC and NBA accreditation, the following improvements are recommended:

- Integration of NAAC and NBA Metrics
- Increased Industry Collaboration
- Digitalization of Accreditation Processes
- Enhancing Global Benchmarking and Collaboration

III. CONCLUSION

Accreditation serves as the foundation for quality assurance in higher education, ensuring that institutions maintain academic integrity, governance standards, and industry relevance. The two major accreditation bodies in India NAAC and NBA have distinct yet complementary roles in assessing educational quality. NAAC provides a holistic evaluation of an entire institution, measuring governance, research, infrastructure, and student support, while NBA focuses on program-specific accreditation, ensuring that technical and professional courses meet Outcome-Based Education (OBE) standards.

Through this study, it is evident that both accreditation systems contribute significantly to the continuous improvement of higher education institutions (HEIs) in India. NAAC accreditation enhances the reputation of institutions, making them eligible for government funding, research grants, and academic collaborations, while NBA accreditation strengthens India's engineering and technical education by aligning programs with global standards (Washington Accord), thereby increasing employability and international recognition for graduates.

The study from this paper suggests a hybrid accreditation model that integrates the best aspects of both NAAC and NBA. A combined approach that evaluates institutions at both the macro (institution) and micro (program-specific) levels, which emphasizes industry-aligned accreditation processes. Increased collaboration with global accreditation agencies, digitalization of the accreditation process, and continuous faculty development are also essential for improving accreditation effectiveness.

In conclusion, the future of Indian higher education lies in a balanced, transparent, and industry-oriented accreditation system that fosters academic excellence, institutional integrity, and international recognition. A well-structured accreditation framework can elevate India's position as a global leader in education and research, ensuring that Indian universities and technical institutions remain

competitive, innovative, and impactful in the years to come.

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Declarations

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