



Application of AICTE and NAAC Standards in College Libraries: A Study of Quality Assurance and Library Development

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Abstract

College libraries play an essential role in supporting teaching, learning, research, innovation and the overall academic development of students and faculty members. In India, the All India Council for Technical Education (AICTE) prescribes minimum norms relating to library infrastructure, books, journals, digital resources, reading-room capacity, information technology and other essential facilities for technical institutions. The National Assessment and Accreditation Council (NAAC), meanwhile, evaluates how effectively colleges develop, manage and utilise library resources as part of institutional quality assurance. This paper examines the application of AICTE and NAAC standards in college libraries and analyses their contribution to collection development, library automation, digital-resource access, infrastructure, user services and evidence-based management. The study is based on a review of official AICTE and NAAC documents and proposes an evaluative framework for assessing compliance in college libraries. It concludes that AICTE norms provide the minimum regulatory foundation, while NAAC encourages continuous improvement, effective utilization, innovation and user satisfaction. Colleges should therefore integrate both frameworks into their library development plans.

Keywords: AICTE, NAAC, college library, quality assurance, library automation, digital resources, accreditation, library standards.

Introduction

Academic libraries have changed from conventional book-storage centers into technology-enabled learning and research-support systems. Modern college libraries are expected to provide printed books, journals, e-books, e-journals, databases, institutional repositories, internet facilities, remote access, plagiarism-detection support, research guidance and information-literacy programmes. AICTE regulates and promotes quality in technical education by prescribing norms and procedures through its Approval Process Handbook. The current handbook covers the academic years 2024–25 to 2026–27 and contains specific norms relating to books, e-books, Journals, library facilities, computers, software, internet access and reprographic facility, reading room equipment.

NAAC assesses and accredits higher education institutions based on institutional performance and quality. In the NAAC framework, the library is considered an important learning resource under the broader criterion relating to infrastructure and learning resources. Library holdings, automation, expenditure, e-resource subscriptions and the utilization of library services are important areas of assessment. AICTE and NAAC have different but complementary purposes. AICTE mainly prescribes regulatory and minimum operational requirements for technical Institutions whereas NAAC evaluates the effectiveness, quality, utilization and continuous improvement of library services. Application of both standards helps a college library develop from a basic compliance-oriented unit into an active academic learning Centre.

Need of the Study

Many college libraries acquire books and subscribe to digital resources primarily during approval, inspection or accreditation periods. However possession of resources alone does not ensure their effective utilisation. Colleges may face problems such as

- Inadequate or outdated collections
- Limited allocation of funds
- Low use of expensive digital databases
- Partial library automation
- Lack of remote access
- Insufficient reading space
- Poor documentation of library activities
- Limited user-awareness programmes
- Absence of systematic feedback and impact assessment.

A combined examination of AICTE and NAAC standards can help institutions understand both the minimum facilities to be maintained and the qualitative practices necessary for academic excellence.

Research Methodology

The study adopts a descriptive and documentary research method. Information is drawn from:

- AICTE Approval Process Handbook 2024–25 to 2026–27
- NAAC manuals for affiliated, constituent and autonomous colleges
- Institutional library records
- Annual reports
- Library budgets
- Accession registers
- Subscription records
- Library-management software reports
- User footfall and circulation statistics
- Feedback collected from students and faculty members.

For an empirical study a structured questionnaire may be distributed to librarians of selected colleges. Observation and interviews may also be used to verify the actual availability and utilisation of resources.

A. AICTE Standards Applicable to College Libraries

1. Library Infrastructure: AICTE prescribes programme-specific library space. Under the Approval Process Handbook, library-area requirements differ according to the programme and approved intake. For example the handbook specifies library spaces for engineering, applied arts, design, hotel management, computer applications and management institutions. It also requires additional library area where the approved intake exceeds the prescribed threshold. The library should provide

- Adequate stack area
- Reading-room space
- Circulation and service area
- Reference section
- Digital-library facilities
- Computers with internet connectivity
- Proper lighting and ventilation
- Barrier-free access
- Reprographic facility
- Safety and security arrangements.

2. Books and Titles: The AICTE handbook prescribes minimum numbers of titles and volumes according to programme, level and number of first-year divisions. For undergraduate engineering and technology programmes it specifies an initial number of titles and an annual increment from the second to fourth years. The number of volumes is linked to the number of titles and first-year divisions. The collection should be

- Relevant to the approved curriculum
- Distributed across subjects
- Updated with new editions
- Inclusive of science, humanities, management and social-science subjects
- Supported by reference books and competitive-examination material.

AICTE also states that the minimum stock should continue to grow for 10 years and Older Edition Books shall be replaced with latest edition by 5% of the total minimum Books required for that Programme.

3. Journals and Periodicals: For undergraduate and postgraduate technical, management and computer-application programmes, AICTE connects journal requirements with the number of courses offered. The handbook recognizes journals accessed through university, state or group consortia and encourages institutions to explore e-resource arrangements such as e-ShodhSindhu. Libraries should maintain

- National journals
- International journals
- Peer-reviewed journals
- Subject-specific magazines
- Newspapers
- Online databases (IEEE, JGATE, Science Direct, Springer, DELENT, Wiley Blackwell)
- Subscription invoices and access records.
- Journals shall also include subjects of Science, Humanities, Management and Social Science

4. Reading-Room Capacity: AICTE links reading-room seating capacity to the total number of students. In several undergraduate programmes, seating for 15 per cent of students is indicated, subject to the prescribed maximum. Postgraduate programmes may have a different proportion and maximum capacity. This requirement ensures that students have adequate physical space for individual study, reference work and digital-resource use.

5. Digital-Library Facilities: AICTE expects reading rooms to provide multimedia computers for digital-library and internet use. The prescribed capacity may cater to up to 10 per cent of students, subject to a maximum limit (Maximum limited to 30 PC's) other important expectations include

- LAN and internet connectivity
- Wi-Fi access
- Computers dedicated to library use
- Access to online courses
- Digital resources through the institutional network
- Membership of the National Digital Library of India
- Support for SWAYAM, NPTEL and other online learning platforms.

AICTE also provides programme-wise computer-to-student ratios and requires separate computing facilities for the library, administrative offices and faculty over and above student-computer requirements.

6. E-books and Electronic Resources: AICTE permits a substantial proportion of required titles and volumes to be provided in e-book form. Intranet access is mandatory for applicable postgraduate programmes and desirable for undergraduate and diploma programmes. The library should ensure

- Authentic institutional licences
- Simultaneous-user access wherever possible
- Campus-wide access
- Remote access where permitted
- Usage-statistics collection
- User training
- Regular renewal based on relevance and use.

7. Library Automation: The AICTE handbook identifies library-automation software and barcoding as desirable facilities. A fully automated library should include

- Acquisition module
- Cataloguing module
- Circulation module
- Serial-control module
- Online Public Access Catalogue (OPAC)
- Barcode or RFID-based transactions
- Membership management
- Fine calculation
- Statistical reports
- Web-based catalogue access.

8. Library Working Hours: AICTE recommends that the library remain functional for extended periods up to 16 hours on working days and 12 hours on non-working days. Where such extended hours cannot be implemented because of staffing or institutional constraints, colleges should at least align opening hours with student needs, examination periods and academic schedules.

9. Reprographic and Scanning Facilities: The handbook identifies a reprographic centre with scanning facilities as an essential library service. It also considers facilities for accessing online courses essential. Such services support

- Digitisation of permitted documents
- Scanning of question papers
- Academic document delivery
- Printing of e-resources
- Preservation of institutional publications.

B. NAAC Standards Applicable to College Libraries

NAAC does not restrict library assessment to the number of books available. It examines whether learning resources are adequate, accessible, automated, regularly updated and effectively used.

1. Library as a Learning Resource

NAAC evaluates the library as a central academic-support system. Its framework considers library holdings, journals, learning materials and technology-supported learning mechanisms. A quality library should support

- Curriculum delivery
- Independent learning
- Research and project work
- Competitive examinations
- Innovation and entrepreneurship

- Faculty development
- Lifelong learning.

2. Library Automation

NAAC gives importance to the extent of library automation through an Integrated Library Management System. Evidence should include

- Name and version of the software
- Year of automation
- Modules implemented
- OPAC or Web-OPAC access
- Barcode or RFID facilities
- Screenshots and reports
- Annual maintenance records
- Backup and data-security arrangements.

Partial implementation of software should not be reported as full automation. All important housekeeping operations must be integrated and regularly used.

3. Subscription to E-resources

NAAC considers the availability and use of electronic resources such as

- E-journals
- E-books
- Databases
- N-LIST
- DELNET
- e-ShodhSindhu
- National Digital Library
- Institutional repositories
- Open educational resources.

Libraries should maintain subscription invoices, membership certificates, access details and usage reports. Merely providing links to freely available resources should not be treated as equivalent to a paid institutional subscription.

4. Expenditure on Library Resources

NAAC assesses the institutional commitment to library development through expenditure on

- Printed books
- Reference books
- Journals
- E-books
- Databases
- Library software
- ICT equipment
- Maintenance and preservation.

The library should maintain year-wise audited expenditure records. Expenditure should be analysed in relation to student strength, new programmes, curriculum revision and resource use.

5. Library Usage

NAAC emphasises the use of library services rather than only the size of the collection. Useful evidence includes

- Daily library visitors
- Books issued and returned
- OPAC searches
- Database usage
- E-resource downloads
- Remote-access sessions
- Reference queries
- Participation in orientation programmes.

The number of teachers and students using the library per day can be calculated from authenticated gate registers, digital entry systems or library-software reports.

6. Best Practices and Innovative Services

NAAC encourages libraries to introduce value-added services such as

- Information-literacy programmes
- New-arrival alerts
- Current-awareness services

- Selective dissemination of information
- Plagiarism-awareness programmes
- Research-support services
- Institutional repositories
- Question-paper repositories
- Book exhibitions
- Best Library User Awards
- Braille and assistive services
- Mobile library applications
- Remote access to subscribed resources
- User-feedback systems.

7. Accessibility and Inclusion

An accredited institution should ensure that the library is accessible to all users, including students with disabilities. Facilities may include

- Ramps and lifts
- Accessible reading tables
- Screen-reading software
- Audiobooks
- Braille resources
- Magnifiers
- Wheelchair-accessible shelving
- Priority assistance.

C. Comparative Analysis of AICTE and NAAC Standards

 Area	 AICTE Approach	 NAAC Approach
1.  Main purpose	Approval and regulatory compliance	Accreditation and quality enhancement
2.  Library collection	Prescribes minimum titles and volumes	Evaluates adequacy, diversity and use
3.  Infrastructure	Programme- and intake-based norms	Evaluates functionality and accessibility
4.  Journals	Prescribes programme-related requirements	Assesses subscriptions, expenditure and use
5.  Reading room	Prescribed seating capacity	Assesses learning environment and utilisation
6.  Automation	Automation and barcoding desirable	Extent and effective use of ILMS examined
7.  Digital resources	E-books, NDL, online courses and internet facilities	E-resource access, subscriptions and usage evaluated
8.  Working hours	Recommends extended working hours	Evaluates responsiveness to user requirements
9.  Documentation	Requires evidence for approval and inspection	Requires authenticated data for accreditation
10.  Improvement	Minimum standards and continued compliance	Continuous quality improvement and best practices

 AICTE enforces minimum standards for approval
  NAAC promotes quality enhancement and excellence

D. Major Challenges in Implementation



1. Financial Constraints

The cost of books, databases, journals, software and ICT infrastructure is continuously increasing. Rural and self-financed colleges may find it difficult to maintain subscriptions and regularly replace outdated material.

2. Inadequate Professional Staff

Some colleges appoint only one librarian or rely on non-professional support staff. This affects cataloguing, user education, digital-resource management, research support and extended working hours.

3. Low Utilisation of E-resources

Institutions may subscribe to databases without conducting sufficient orientation and training. As a result, expensive resources remain underutilised.

4. Partial Automation

Some libraries use software only for circulation while acquisition, serial control, OPAC, attendance and reporting continue manually. Such arrangements limit operational efficiency and weaken accreditation evidence.

5. Weak Documentation

College libraries frequently conduct valuable activities but fail to maintain

- Attendance records
- Photographs
- Reports
- Feedback
- Outcome analyses
- Usage statistics
- Audited expenditure statements.

6. Outdated Collections

AICTE stresses regular collection growth and replacement of outdated editions. Nevertheless, older syllabi, obsolete technology books and unused duplicate copies often remain part of the reported collection.

7. Changing Accreditation Requirements

Institutional manuals, data templates and evidence requirements may be revised. Libraries must therefore refer to the manual applicable to their institution and accreditation cycle rather than relying solely on older checklists.

8. Suggested Compliance and Quality Framework

A college library may use the following five-level scale

Sr. No.	Level of Compliance
1	Not available
2	Partially available
3	Meets minimum standard
4	Fully implemented and regularly used
5	Innovative, measurable and continuously improved

The following indicators may be assessed

1. Adequacy of library space
2. Reading-room seating
3. Number and relevance of books
4. Availability of recent editions
5. Journal and periodical subscriptions
6. Electronic-resource access
7. Digital-library facilities
8. Extent of automation
9. OPAC and Web-OPAC availability
10. Internet and Wi-Fi facilities
11. Accessibility for users with disabilities
12. Library budget
13. Annual expenditure
14. Professional staff strength
15. User-orientation programmes
16. Daily library usage
17. Database-usage statistics
18. User-feedback mechanism
19. Documentation practices
20. Innovative and best practices

The compliance percentage may be calculated as

$$\text{Compliance Percentage} = \text{Score Obtained} \div \text{Maximum Possible Score} \times 100$$

The results may be interpreted as follows

Percentage	Level of Compliance
81–100%	Excellent
61–80%	Good
41–60%	Moderate
21–40%	Low
Below 21%	Very low

Findings of the Study

On the basis of the documentary analysis the following findings emerge

1. AICTE standards provide measurable minimum requirements for library collections, seating, digital facilities and programme-specific resources.
2. NAAC standards give greater importance to effective utilisation, expenditure, automation, accessibility, documentation and continuous improvement.
3. The two frameworks are complementary rather than competing.
4. A library may technically satisfy AICTE norms but perform poorly under NAAC when resources are inadequately used or poorly documented.
5. Digital-library access, automation, e-resource awareness and usage measurement have become essential aspects of quality library management.
6. The professional role of the librarian is central to maintaining compliance and demonstrating institutional outcomes.
7. Strong documentation is necessary for both inspection and accreditation.
8. Libraries need to move from an input-based approach counting books and subscriptions to an outcome-based approach that measures learning, research support and user satisfaction.

Conclusion

The application of AICTE and NAAC standards contributes significantly to the development of effective college libraries. AICTE establishes the basic regulatory foundation by specifying requirements for books, journals, library space, reading-room capacity, digital facilities, internet access and related services. NAAC extends the quality framework by evaluating automation, expenditure, access, utilisation, innovation, inclusion and continuous improvement. Successful implementation should not be limited to fulfilling inspection requirements. College management, IQAC, faculty members and librarians must work together to ensure that library resources are current, accessible and effectively used. A library that integrates AICTE compliance with NAAC quality practices can become a dynamic knowledge-resource centre supporting academic excellence, research, employability, innovation and lifelong learning.

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