TOWARDS RE-EXAMINING THE NORMS AND STANDARDS OF AICTE WITH SPECIAL REFERENCE TO LIBRARY

Dr. Mohan R. Kherde Dr. Milind B.Anasane

Dr. Mohan R. Kherde

Director
Knowledge Resource
Centre
Sant Gadge Baba Amravati
University
Amravati (MS)
Email:

mohan kherde2@rediffmail.com

Corresponding Author

And

Dr. Milind B.Anasane

Librarian
HVPM's College of
Engineering & Technology
Amravati (MS)
Email:
mbanasane@rediffmail.com

AICTE is playing a major role in the development of libraries of engineering colleges in the country. For this, AICTE publishes norms and standards every year through its Approval Process Hand Book. In the present paper these published norms and standards are examined thoroughly keeping in view the present status of libraries of technical education. The traditional libraries are now switching towards the new look of ICT environment. These new face libraries are identified as digital, virtual and paperless libraries. With this conceptual transformation the need base of libraries is also changing. In purview of this, the attempts have been made to suggest some requisite amendments and modifications in the same.

Keywords: AICTE, Norms, Library Standards

INTRODUCTION

Libraries in technical education are providing resources to its stake-holders for encouraging their intellectual interest and imaginative reasoning. It is also making them aware of their environment, development around them and motivating to adopt new technology like computerization, digitization and use of e-resources. Therefore, library has been considered to be a 'Knowledge Hub' in technical institutions. Considering this, the All India Council for Technical Education (AICTE) is contributing its share in the development of libraries of engineering education by formulating the Norms and Standards.

All India Council for Technical Education (AICTE) was established in 1945 by the Government of India. It is a national level apex advisory body for technical education in India. It is responsible for mainly taking appropriate steps to develop and maintain the standard and quality of technical education system in India. Accordingly, AICTE lays down norms and standards regarding infrastructural facilities, staffing pattern, qualifications, assessment, curriculum and examinations. It publishes these norms and standards every year in its Handbook. In the present paper, the

attempt has been made to study these norms and standards with special reference to library activities thoroughly keeping in view the present status of libraries of technical education.

OBJECTIVES OF THE STUDY

To carry out the present work the following objectives have been set up.

- i) To study the norms and standards laid down by the AICTE from time to time for libraries of engineering colleges in India.
- ii) To suggest the modifications, if necessary in the norms and standards laid down by AICTE with respect to libraries.

NORMS AND STANDARDS OF AICTE WITH SPECIAL REFERENCE TO LIBRARY

AICTE has framed first norms, standards and guidelines for the technical institutions in 1990. The points related to library regarding staffing pattern, job responsibilities, minimum required qualifications, library collection i.e. books and periodicals, library space, required library furniture and equipments were included. Thereafter, these norms and standards are being published every year in the AICTE Handbook.

A. AICTE's Norms and Standards -1990

Norms and Standards of AICTE published in the year 1990, the following norms are highlighted concerning library (All India Council for Technical Education, 1990).

i) Building Space for Library: Considering the requirements of libraries in terms of space and various sections, minimum as well as desirable norms are given. For first 500 admitted students, minimum 250 square meter area and for every

additional student, 0.275 square meters were recommended for library building. It was the minimum requirement. However, in desirable norms, 300 square meter area was recommended for the first 500 admitted students and thereafter, for every additional student 0.35 square meters area was mentioned in the norms.

Moreover, it was also given in the norms that if the institution is of non-residential type then in such a case less requirement of reading room was given with large stock of books. On the contrary, the desirable part was large reading area and less stock of books. So far reading room is concerned, the required capacity was 5% of the students and 10% of the teachers. Moreover, other requirements such as librarian's office, space for cataloguing, a store and issue counters are also recommended.

- **ii)** Library Personnel: In the norms and standards published in 1990 one post of Librarian, two Assistant Librarians, four Library Assistants and two post of Library Attendants were recommended. With these posts their minimum qualifications, authorities and responsibilities were also mentioned therein.
- iii) Books and Periodicals: Collection is the main asset of any library. In this regard, it was mentioned in the norms that at initial stage irrespective of strength, institute must have 7000 books including 1000 books per branch of Engineering and Mathematics each and 1000 books including all other subjects like Applied Physics, Applied Chemistry, Humanities, Social Sciences and Management Science. This collection must be increased up to 20,000 over a period of 10 to 12 years. However, instead of 1000, 1500 books are recommended as desirable.

It is recommended that 1 book of each branch of engineering per admitted student be added every year while 0.2 books collectively of Applied Mathematics, Chemistry, Humanities, Social Sciences and Management Science be added.

So far the number of journals are concerned, it is recommended that for each branch of engineering there should be 12 journals (6 national and 6 international). Similarly for other subjects such as Applied Mathematics, Chemistry, Humanities, Social Sciences and Management Science additional 12 journals (6 national and 6 international) are recommended. In both the cases, 16 journals (8 national and 8 international) are desirable.

iv) Furniture: Furniture is another important factor for library. It must be functional, attractive and flexible. Moreover, it should be designed in such a way that while providing services to the users and while studying it should be comfortable. AICTE recommended through its norms and standards published in 1990 that there should be Reader's table, chairs, book racks, reference shelves, periodical stands, catalogue cabinet, notice boards and furniture for staff. Minimum and desirable norms for it were also recommended.

B. Norms and Standards amended after 1990

After 1990, AICTE had made major amendments and modifications in its norms and standards during 1999, 2003-04, and 2009-10. These amendments were published in respective years. The points concerning library which were given in these amended norms are discussed below.

C) Norms and Standards of AICTE -1999 (Amended)

The norms and standards of AICTE published in 1990 were amended in 1999, wherein certain points regarding the library were also amended. These amended points of library are highlighted below (All India Council for Technical Education, 1999).

a) Library Personnel

It was given in the norms amended in 1999 that for running the library effectively at least 12 hours a day, the sufficient staff must be provided to it. However, the timings of the library were not mentioned in the previous norms. Further, one post of Assistant Librarian and two posts of Library Attendants were curtailed here as compared to its norms and standards in 1990.

b) Library Space

In this amended norms, 400 square meters carpet area was recommended for 240 students. However, previously it was given as minimum 250 square meters for 500 students and then with every additional student, 0.275 square meter was mentioned to be added.

c) Books and Periodicals

Irrespective of students strength it was recommended in 1990 that there should be 7000 books initially and then gradually it should increase up to 20,000 in 10-12 years. However, 4000 volumes for three branches at initial stage were recommended in these norms. The distribution of it was 250 titles and 1000 volumes for each branch and 1000 volumes for other subjects such as Mathematics, Humanities, Physics, Chemistry, etc. Previously for the subject

of mathematics 1000 books were recommended. On the contrary this point is dropped in the recommended norm.

For yearly additions of books, the following points were recommended:

- For each branch of Engineering for every admitted student 1 title (4 copies) should be added per year.
- For Mathematics, Applied Physics, Humanities, Social Science and Management Science for every admitted student 0.2 titles should be added per year.

So far the subscription / purchase of journals is concerned, no change was observed.

D) Norms and standards of AICTE - 2003-2004 (Amended)

In the year 2003-04, AICTE had published its handbook titled 'Approval Process Hand Book: 2003-04' in which amended norms were given. Details regarding library are given below (All India Council for Technical Education, 2003-04).

- a) Norms for the establishment of new technical institutions.
- At the time of establishing new technical institutions, library shall possess 400 sq. meters carpet area. The seating capacity of library has to be 25 percent of the sanctioned intake with sufficient furniture for books.
- Library required 250 titles with 1000 numbers of volumes per course for technical subjects and 1000 numbers of volumes for Science and Humanities subjects.
- The library will have to subscribe three journals per engineering course.

- The library will have one full-time librarian
- One photocopier is required in the library.
- In desirable requirements, Digital Library section with two computers having multimedia facilities and duly networked was specified.
- b) Norms for the existing technical institutions.

The norms of library for existing technical institutions are same as in newly established technical institutions except in terms of journals subscription. It was mentioned that 12 journals per course be subscribed. Moreover, it was given that 1000 books be added every year. These norms remained unchanged till 2009-10. However, during the course of time, the following nominal changes were made in the year 2005-06.

- Subscription of only three journals per engineering course was made compulsory for new technical institutions in 2003-04. However, in the re-amendments it included 5 national and 2 international journals per engineering course as well as 4 journals for Humanities and Science subjects.
- It was previously mentioned that in the digital library section there should be only two computers. However, this figure was raised up to 4 during this amendment. This clause was given for newly established institutions only.
- The provision for e-journals was made, which was not mentioned previously.

E) Norms and Standards of AICTE - 2009-10 (Amended)

AICTE had made major changes in its norms and standards in the year 2009-10 regarding library. These amended norms are published in

"Approval Process Hand Book: 2009-10". The amended points are given below (All India Council for Technical Education, 2010).

- a) Norms for the establishment of new technical institutions.
- For under graduate programmes of Engineering and Technology, it requires 100 numbers of titles per course and 500 numbers of volumes per divisions of 1st year. Similarly, 50 numbers of titles and 200 numbers of volumes per course for post graduation courses are required. According to AICTE Hand Book-Jan.2010 the meaning of "Division" is given as a batch of sixty seats of under graduate programmes in Engineering.
- Moreover, it was mentioned in the norms that the library must subscribe / purchase 6 National and 6 International journals per division of 1st year for under graduation courses. In addition for the post of graduation 5 National and 5 International journals per division of 1st year must be subscribed. In addition to this, ejournals must also be subscribed.
- Library must have reading room having capacity of 15% of the total students or at a time maximum 150 students can take its advantage.
- Digital library with multimedia facility was made compulsory. Library must have PCs of one percentage of the total strength of students or maximum 10 in numbers.
- Further, the following facilities were compulsorily be required in library Document scanning, Document printing, Classification as per standard classification method and NPTEL
- Computerized indexing, barcode and RFID facilities are recommended in desirable form.

b) Norms for the existing technical institutions.

For existing institutions, it is mentioned in the norms that 50 titles per course and 250 volumes per course per division be added every year for UG courses. Whereas for PG, it is mentioned that as per the requirements, titles of books as required and 100 volumes be added per year. Other norms are same as in case of newly established institutes.

F) Norms and Standards of AICTE Amended after - 2009-10

After 2009-10 in the year 2010-11, only one point is amended in the norms and standards in respect of library. The AICTE relaxed the condition of subscribing International journals for UG courses up to 3 per division instead of 6 per division which was given in the norms published in 2009-10 (All India Council for Technical Education, 2010-11).

In the year 2012-13 the subscription of International journals were made desirable to both the UG and PG level. However, six e-journal packages namely IEEE, ASME, ASCE, Mc-Graw Hill, Elsevier and ASTM Digital Library were made mandatory to UG and PG with few exceptions (All India Council for Technical Education, 2012-13). In 2013-14, three e-journal packages i.e. Springer, Wiley-Blackwell and J-GATE were added in the present list of six e-journal packages (All India Council for Technical Education, 2013-14).

However, in 2015-16 the relaxation was given in the mandatory part of the subscription of e-journal packages. Instead of the word 'Mandatory', the word 'Suggested' was used in the norms and standards. Besides this, the following

amendments were also observed in the academic year (All India Council for Technical Education, 2015-16).

- Basically library must have 400 sq. meters area. In case the intake capacity goes beyond 420, additional 50 sq. meters area in the form of reading room is required.
- Twenty five percent of total numbers of titles and volumes each can be in the form of ebooks.

Status-quo position remained in the norms published in the year 2016-17 when compared to the norms published in 2015-16.

Norms and Standards of AICTE for the year 2017-18

AICTE published Norms and Standards for technical institutions in its Approval Process

Handbook during 2017-18. In the same handbook norms of Engineering and Technological libraries were also given. As compared to the norms published in 2016-17, the additions were manifested (All India Council for Technical Education, 2017-18).

- Previously percentage of e-books in total numbers of titles and volumes was 25, which is raised to 33%
- It was made essential to become a member of National Digital Library.
- In the suggested list of e-journal packages five more packages i.e. IETE, DELNET, ISO, IEI, and IET were added.

Details about norms and standards published in 2017-18 are highlighted in table 1.

Sl.	Item/Particular	Requirement	
No.		UG	PG
1	Books at the time of starting a new	100 Titles	50 Titles
	institution	500 Volumes X B	200 Volumes
2	Yearly increment	50 Titles per Course	As required
		250 Volumes per Course	100 Volumes
3	National Journals	6 X B	5 X B
4	International Journals	Desirable	Desirable
5	E-Journals	Suggested as per the list given in Table 4	
6	Library and Reading Room	400 Sq. mtr. (1 Room)	
7	Total Number of Rooms	1	
8	Reading Room Seating Capacity	15% of total students (Max 150)	25% of total students (Max 100)
9	Multimedia PCs for Digital Library/Internet Surfing located in reading room	1% of total students (Max 10)	

Table 1- The Norms and Standards for Library

Besides the points given in table 1, the following points were also given in the norms and standards of 2017-18.

- Additional Library (Reading Room) area of 50 sq m/60 students (UG+PG) intake beyond 420.
- Total numbers of titles and volumes shall be increased in continuation till 15 years, which shall be the minimum stock of books. However, institution shall have to add annual increment of books as specified in APH 2017-18.
- Hard copy of the International journals are desirable for the procurement.
- E-Journals are recommended. A list of suggested e-journal packages was given
- Journals and Books may also include subjects of Science and Humanities.
- Computerized indexing with bar coded/RF tagged book handling is desired
- 33% of total number of titles and volumes each can be in the form of e-books with Intranet
- Institution should be a member of National Digital Library
- Following facilities are made essential in the library.
- Digital Library facility with multimedia facility, Reprographic, Document Scanning, NPTEL, Library books/non books classification as per standard classification method, Library shall be provided with exclusive computing facilities along with LAN and Internet.

H) Norms and Standards of AICTE for the year 2018-19

The major change observed in the Norms and Standards published in 2018-19 is concerned with journal subscription. The list of e-journal packages given in 2017-18 is dropped. Instead, it is mentioned in the amended norms that 'The e-Shodh Sindhu is providing support in negotiating the prices of e-resources to the AICTE approved technical institutions. The same shall be explored by the institutions'. Moreover, it is expected that while subscribing national journals, it shall be subscribed from the list of journals included in Web of Science or Scopus. Further share of e-books is raised up to 50% (All India Council for Technical Education, 2018-19).

SUGGESTIONS IN NORMS AND STANDARDS IN RESPECT TO LIBRARY

Library is considered to be a 'Knowledge Hub' of an academic institution. It will not an over exaggeration to say that the academic status of the institute depends on the standards of its library. In technical education, library plays a pivotal role. Considering the importance of library, AICTE in its 'Approval Process Handbook' published annually, provides norms and standards for it. However, it is observed that the norms are amended frequently and create confusion amongst the librarians. Therefore, it will be appreciated that once the norms are prepared, it should not be amended unless and until it is needed. In view of this, it is attempted to suggest the following norms and standards for library.

i) Library Space

Library must have eight sections namely Acquisition/ Technical Section, Circulation

Section, Stack Section, Periodical Section, Reference Section, Computer section/E-Resource Access Center, Reading Room and Administration Section. Total built up area of library should be 750 sq meters. Seating capacity of reading room should be minimum 15% of the total strength of the students and faculty members. However, built up area of each section of library should be as given in table 2.

Table 2: Section wise built up area of Library

Sl. No.	Sections	
1	Librarian's cabin, Library Committee Hall and Administration Section	35 Sq m
2	Acquisition/Technical 2 Section/Space for Assistant Librarian	
3	Reference and Periodical Section	100 Sq m
4	Circulation Section cum Stack Section	275 Sq m
5	E-Resource Access Center/ Computer Section/Space for Technical Assistant	
6	Reading Room	160 Sq m
7	Amenities (Store, Reprography, Property Counter, Pantry, Toilet, Common Walk Way, Entrance lobby etc)	80 Sq m
	750 Sq m	

ii) Library Personnel

Efficiency and effectiveness of library largely depends upon the proficiency and competencies of its staff. Well qualified, highly technically skilled and well motivated staff surely contributes to the success of libraries in ICT era. Considering the report of Working Group of Libraries of National Knowledge Commission (NKC) submitted in the year 2007 along with the report of Subcommittee on Staffing in

Universities and College Libraries in Maharashtra constituted by Hon'able Chancellor's office of Maharashtra in the year 2009, the library of Engineering and Technology must have at least the following categories of staff.

- One Librarian having the qualifications and pay scale as per the norms laid down by UGC from time to time.
- One Assistant Librarian with M.LI.Sc. degree of any recognized University
- One Technical Assistants (Computer) having qualification of B.LI.Sc. and Diploma in Computer Application
- Two Library Assistant with B.LI.Sc. and Knowledge of Library Automation
- Two Attendants with Certificate course in Library Science
- One Library Clerk and
- One Peon/Sweeper

iii) Post wise Job Description

a. Librarian

- General Administration
- Selection and purchase of resources (Print and Non print)
- Render library services
- Prepare Library Budget and Annual Report
- Conduct Information Literacy Program for library users
- Responsible of Planning and developing the library

b. Assistant Librarian

- Accession of books and other reading materials received to the section
- Classification of Books and other reading materials

- Assist in maintaining the Statistical information of the library
- Assist Librarian in his work
- Other work given by the superior

c. Technical Assistant (Computer)

- Responsible for the Computerization/ Automation and digitization of the library
- Develop and maintain the database/s of library collection
- Develop and maintain computer section/ E-Resource Access Center of the library
- Provide on line services to the users.
- Other work given by the superior

d. Library Assistant

- Issue books and other work related to the circulation of books
- Prepare the list of new additions of books
- Develop database of the recommendations received to the section
- Check the recommended books with the database of the library to avoid duplications
- Prepare purchase orders for books
- Render services to users
- Provide reprography services to the users
- Maintain of Stack section, organize books and other reading materials in the section
- Repair documents and work related to binding of books/periodicals, processing of books
- Responsible for Book Bank Service
- Help in Stock Verification
- Other work given by the superior

e. Library Attendant

- Attend Property Counter
- Check Gate passes
- Clean and Dust books and furniture

- Stamp, label, past and bar code
- Minor repairs of documents
- Handle and transportation of documents
- Attend Supervisory staff
- Shelve/re-shelve of books, periodicals and other reading materials
- Help in Stock Verification
- Other work given by the superior

f. Library Clerk

- Maintain building/space of the library
- Prepare annual budget and various reports
- Maintain accounts and records of the library budget
- Office advances, Maintenance of leave records
- Inward/Outward work
- Other work given by the superior

g. Peon/Sweeper

- Bring the parcels from the transport office
- Delivery of circulars, letters to the respective departments/sections
- Clean and dust
- Other work given by the superior

iv) Collection Development

The norms and standards suggested for the library collection are highlighted in table 3.

15% titles should be from the category of text books based on syllabus. Further, at least 6 volumes must be purchased for each of such titles. For the books based on syllabus it is assumed that it should be one volume for 10 students. It will be applicable exclusively for UG courses.

Table 3: Suggested Norms and Standards for Library Collection

Sl.	Item/Particular	Minimum Numbers of Books Required		
No.		UG	PG	
1	New institution (For intake 60 per Branch)			
	Engineering Branch	200 Titles/Branch	100 Titles/ Branch	
		1000 Volumes/Branch	250 Volumes	
	Management, Humanities, Social Science, Science and Mathematics	40 Titles/Subject		
		1000 Volumes		
2	Yearly Addition			
	Engineering Branch	50 Titles/Branch	50 Titles/Branch	
		250 Volumes/Branch	125 Volumes	
	Management, Humanities, Social Science, Science and Mathematics	10 Titles/Subject		
		125 Volumes		
3	Indian Journals (Print)	6 per Branch	10 per Branch	
4	Foreign Journals (Print)	Desirable	Desirable	
5	E-Journals/Online Databases	Getting access through Institutional Membership of the library of the parent University be appreciated		

v) Library Services/Facilities

Library should provide at least the following services and facilities to its users.

- Lending Service
- Reference Service
- Referral Service
- Internet Service
- Current Awareness Service
- Open access facility for PG students
- OPAC facility
- Inter Library Loan facility
- Book Bank facility
- E-Resource Access Centre facility
- Reading Room facility
- Digital Library facility

vi) Equipments

a) Minimum five computers with one server in network.

- Server is required to maintain the database of collection of the library.
- One computer for Circulation Section of the library.
- Two computers for Online Public Access Catalogue (OPAC)
- One computer for data entry service
- One computer for Librarian
- b) Minimum 10 computers are required to develop E-Resource Access Centre in the library to access the e-resources subscribed by the library.
- c) All computers should connect with high speed Internet facility.
- d) One-UPS of 10 KVA with sufficient backup.
- e) Minimum one Scanner, sufficient printers and other equipments required for library automation.

- f) Beside these, two computers shall install in each teaching department for students and faculty members to access eresources subscribed by the library. These computers should attach to the server installed in the library by Intranet.
- g) Standard Library Software/s
- h) CCTV System

vii) Furniture

- a) Library Stack
- b) Display Racks for Periodicals
- c) Sufficient furniture should be made available in the library for users, staff and other purpose.

CONCLUSION

Regarding the collection of library in terms of books and journals, it is observed that AICTE amended its own norms from time to time. Many variations occur in these amendments creating confusion and problems for library for balancing its collections. Therefore, it is suggested that the norms should not be changed at least up to five years or unless it is genuine. Further, less importance is given to the subjects of Science and Humanities in the norms which is not acceptable.

The annual subscription amount to be paid for the e-resources is very high. Comparatively its utility does not meet the expectation. The effect of this high cost may result in the rise of educational fees of the students who want to seek admission in engineering courses. Therefore, it is suggested to the engineering college library to access the e-resources subscribed by its concerned University. However, it is recommended that the college library should take institutional membership of the library of its concerned University by paying the membership fees.

So far library space is concerned in the norms it is very less and not sufficient to manage the library of technical education in ICT era. Moreover, the staffing pattern given in the norms published in 1990 is very in-adequate with the time. It is not sufficient to fulfil the present needs of libraries as well as its users. With the change of time, it should be amended considering the working of library in ICT environment. Recently, on 1st March 2019 the notification titled 'AICTE Regulation on pay scales, service conditions and minimum qualifications for the appointment of teachers and other academic staff such as Library, Physical Education and Training and Placement Personnel, in technical institutions and measures for the maintenance of standards in Technical Education - (Degree) 2019' is published in the Gazettee of India. In this Gazette u/s 6.3 the minimum qualifications for direct recruitment of Assistant Librarian are mentioned. However, instead of 'Assistant Librarian' the title should be changed as 'Librarian'.

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