1.1 Introduction

Change is one reality with which individuals, groups and organizations must constantly cope in order to survive. The needs for progressive changes in people’s attitudes and behaviors are essential for global acceptance. Nevertheless for Library and Information Science (LIS) professionals, a change is often linked with modern information technologies and management issues. Over the past few decades, the nature of library environment and mode of service has changed drastically.

A library is a collection of sources, resources, services, and the structure in which it is housed; it is organized for use and maintained by a public body, an institution or a private individual. In the more traditional sense, a library is a collection of books. It can mean the collection, the building or room that houses such a collection or both. The term "library" has itself acquired a secondary meaning: "a collection of useful material for common use," and in this sense is used in fields such as computer science, mathematics, statistics, electronics and biology.

Public and institutional collections and services may be intended for use by people who choose not to or cannot afford to purchase an extensive
collection themselves, who need material-no individual can reasonably be expected to have or who require professional assistance with their research.

In addition to providing materials, libraries also provide the services of librarians who are experts at finding and organizing information and at interpreting information needs.

However, with the sets and collection of media other than books for storing information, many libraries are now also repositories and access points for maps, prints or other documents and various storage media such as microform (microfilm/microfiche), audio tapes, CDs, cassettes, video tapes, DVDs, and video games. Libraries may also provide public facilities to access subscription databases and the Internet.

Thus, modern libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. They are understood as extending beyond the physical walls of a building, by including material accessible by electronic means, and by providing the assistance of librarians in navigating and analyzing tremendous amounts of knowledge with a variety of digital tools.

The central mission of a library is to collect, organize, preserve and provide access to knowledge and information. In fulfilling this mission, libraries preserve a valuable record of culture that can be passed down to succeeding generations. Libraries are an essential link in this communication between the
past, present and future. Whether the cultural record is contained in books or in electronic formats, libraries ensure that the record is preserved and made available for later use. Libraries provide people with access to the information they need to work, play, learn and govern.

People in many professions use library resources to assist them in their work. People also use library resources to get information about issues of personal interests or to obtain recreational materials such as films and novels. Students use libraries to supplement and enhance their classroom experiences, to learn skills in locating sources of information and to all cultural institutions, the library provides information and services that are essential to learning and progress.

Libraries must assure the status of information market permitting a free commerce of thought to users, the consumers of this commodity of information. Information is a precious resource that has a finite lifetime. All along we have clamored merely for the right to freedom of speech and expression. Now we must insist upon right to information access. Those promote empowerment of people.

There is a scarcity of resources, putting lot of pressure on library services. Today, we need sustainable librarianship. Sustainability means to be able to sustain with reduced resources, by adopting innovative practices leading to economies of different kinds. Students need to be ascertained and motivated for
better reading. This is possible only when there is a well-knit library attached to the college libraries and continues to perform traditional functions.

The information about libraries provides an overview of the different types of libraries and explains in detail their various collections, functions and services. It also profiles careers in library work, the educations of libraries and several professional organizations for librarians.

Basing on the objectives of the library, the libraries are classified into different categories like academic libraries, public libraries and special libraries etc.

Academic Libraries are the libraries established in academic institutions to support teaching and research activities of students, researchers and teachers. The academic library is a service center where professionalism of the staff manning it can come hardly to the clientele, be they the students or the teachers. The real worth and potential of a library is realized when the students feel compelled to be driven from the classroom to the library to quench the thirst that is created in the classroom.

Academic libraries must decide what focus they take in collecting materials since no single library can supply everything. When there are particular areas of specialization in academic libraries these are often referred to as niche collections. Although the library is a collection of information, sources, resources and services, and the structure in which it is housed, there are many types of libraries with their own distinct features and functions. Located on the campuses
of colleges and universities, academic libraries serve primarily the students, faculty, and researchers. Some academic libraries, especially those at public institutions, are accessible to members of the general public as well.

The academic libraries include libraries in schools, colleges and Universities. All these cater to the needs of the academic community for supplementing the study and research programmes of the institutions and help to conserve and disseminate the knowledge.

1.2 COLLEGE LIBRARIES

The objective of a college library is to supplement the instructions imparted in the classroom. It aims to function as an independent teaching agency, encouraging and promoting the use of books in the ways beyond those suggested or required by the classroom.

The college library functions basically to assist and support the study and teaching in the respective college. It helps to meet the reading requirements of the students as well as the teachers of the college.

Randall and Francis stated that, to meet the educational objectives of a college, its library has to perform the following functions:

- Make available to the students, books and allied reading material relevant to the courses offered in the college;
- Make available the books and documents required by faculty members in preparation of their instructional courses;
- Provide supplementary books and reading material to help in study and teaching at the college;
- Provide comprehensive selection of authoritative books and documents needed by the faculty members to pursue their research programmes;
- Promote the proper use of reading material available in the stock; and
- Train the students in making use of the library properly and derive full advantage of it, by integrating the library with the educational courses.

The objective of college libraries should be emphasized on the provision of latest information to users, support to user studies, etc. In order to cope with these activities, the professionals should be given an opportunity to learn the skills in IT from time to time.

1.2.1 PROBLEMS OF COLLEGE LIBRARIES

The following are some major problems being faced by the college libraries:

- Lack of library centered teaching.
- Lack of right books.
- Lack of scientific book selection policies.
- Escalating cost of books.
- Inadequacy of books.
- Inadequacy of physical and technical organization.
- Inadequacy of staff.
- Inadequate continuing education programmes.
- Inadequacy of services.
- Lack of library awareness among students and staff.
With the advent of the Industrial Age, which was in by the discovery of the steam engine by James Watt about 1780, and the ability to generate and to handle large amounts of power rendered possible by the invention of the steam engine, men passed from dependence on human labour and hand tools to large and complicated machinery: production of commodities passed from cottage workshops to factories. Transportation by bullock-carts, horse-driven carriages, and wind or man driven boats, gave way to railroads and steamships. All these necessitated the construction of large machines, engines, ships and carriages, and gave rise to problems of industrial finance and labour.

While inventive genius was called upon to devise new kinds of machines and to handle new types of processes, the craftsmen and artisans were called upon to put these designs into actual practice. They were asked to test and handle these machines and to repair them whenever necessary. The engineer was thus evolved from different streams: first from the artisans and craftsman on one side, who belonged to the lower orders of the less specialized society of the last century, and on the other side from the gentle class who had knowledge of sciences, and had acquired habits of disciplined and organized thinking. Sometimes the two types merged in the same person i.e., the craftsman taught himself sciences, and learnt to think and invent (e.g. James Watt): or the man with scientific education took to practices with appliances and machinery for the definite objective.
It was soon found that it was not possible to depend upon unlettered mechanics and craftsman to manufacture, according to designs given to them, the new types of machines, which were constantly coming into use, or upon apprentices to handle these machines properly, unless they were instructed in their use. Schools for general education of craftsmen and artisans, and for teaching apprentices the use of machines were founded by Johan Anderson at Glasgow about 1790 and Dr. Brikbeck in London in 1823.

1.3.1 Origin and Development of Engineering Education in India

The impulse for creation of centers of technical training came from the British rulers of India, and it arose out the necessity for the training of overseers for construction and maintenance of public buildings, roads, canals, ports and for the training of artisans and craftsmen for the use of instruments and apparatus needed for the army, the navy and the survey departments. The superintending engineers were mostly recruited from Britain from the Coopers Hill college, and this applied as well to foremen and artificers: but this could not be done in the case of lower grades-craftsmen, artisans and sub-overseers who were recruited locally. As they were mostly illiterate, efficiency was low. The necessity to make them more efficient by giving them elementary lessons in reading, writing, arithmetic geometry and mechanics, led to the establishment of industrial schools attached to Ordnance Factories and other Engineering Establishments.

Engineering education, unlike other types of professional education, has not had a long history. Though the ancients and medieval had built large brick and stone houses, castles and huge temples had constructed long highways and
aqueducts and dug canals, which show considerable knowledge of what are now
called civil and hydraulic engineering and of properties of building materials, this
knowledge must have been derived empirically. Beginnings of mechanical
engineering are to be found in the manufacture and use of tools means of
transport, simple machinery like lathes and weapons of offence and defense.
Rudiments of chemical engineering are to be seen in the old metallurgical
practices. But there were no organized schools for teaching apprentices the use
of machinery or knowledge of processes: knowledge passed from generation to
generation of craftsmen and artificers, by work of mouth, and thus confined to
castes and guilds.

In India first technical education was in the form of survey school and it
was around 1794. Later diploma programmes were started in 20th century. The
first engineering college was started at Roorkee in 1847, this was Thomson
college of engineering. After that three engineering colleges were started in three
presidencies at Madras, Calcutta and Bombay. The Bengal Engineering College
was started in 1856 at Calcutta. An overseers school was started at Pune, this
school eventually become the Pune Engineering College. In Madras an industrial
school was attached to gun carriage factory and it ultimately took shape as an
engineering college². In 1915 Indian Institute of Science was started at
Bangalore which has offered both science and engineering courses. The first
bachelor degree programmes were in mechanical and electrical engineering in
1917 at Banaras Hindu University. In India, before Independence there were 38
institutions with an intake of 3670 at the diploma level. Today in India there are
4950 technical institutions at degree level with an intake of 24, 75,000. (twenty four lakhs seventy five thousand student’s respectively)\(^3\). These include regular engineering colleges, polytechnics, Indian Institute of Technologies (IITs), Regional Engineering Colleges and other institutions.

1.3.2 All India Council for Technical Education (AICTE)

The All India Council for Technical Education (AICTE), is the statutory body and a National-level council for technical education, under the department of Higher Education, Ministry of Human Resource Development. Established in November, 1945 first as an advisory body and later on in 1987 it has given statutory status by an Act of Parliament. AICTE is responsible for proper planning and co-ordinate development of the technical education and management education system in India\(^4\).

In 2009, the Union Minister of Education formally communicated his intentions of closing down AICTE and related body, in favors of a larger regulatory body (NBA). The AICTE will be superseded by the National Board of Accreditation (NBA). The NBA which currently operates under the wing of AICTE will be converted into an independent body. 1.8 ACCREDITATION – NBA. The National Board of Accreditation (NBA) was constituted in 1994 as per the AICTE Act, 1987. The accreditation process is not meant for fault finding, but to reveal the areas of strengths and weaknesses, which eventually help the institutions in improving their academic efficiency. The criteria for accreditation were finalized
after a series of workshops and meetings conducted all over the country. Criteria for accreditation:

1. Mission and goals of the institution
2. Course objectives
3. Student details
4. Alliance of the institution
5. Industry - Institution interaction
6. Evaluation of human resources
7. Curriculum, physical infrastructure, library, computer centre, recreation facilities to the students and staff etc.

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6. Evaluation of Human Resources and

7. Curriculum Physical Infrastructure, Library, Computer Sector, Recreation Facilities to the Students and Staff etc.

1.3.4 Structure of Technical Education

Keeping in view the requirements of the country, 4 levels of technical education has been needed. These four levels are (i) Programmes and courses offered by it is whose products will be working as skilled workers, (ii) Diploma level programmes offered by polytechnics whose products will work as supervisors, (iii) Degree level programmes offered by IITs, University Colleges and Engineering Colleges whose products will function as engineers and technologists and (iv) Postgraduate programmes like P.G. Diplomas, M.Tech., and Ph.D., whose products will become management personnel, teachers and scientists. Hence, the study is covered to engineering colleges (Degree, PG & Ph.D level institutions) and a brief note of engineering with different status is given below:

1.3.5 Indian Institute of Technology (IIT) and Technology Development

In 1945 Sarkar Committee recommended to start four technical educational institutions one in each region, i.e., Northern region (Kanpur), Southern region (Madras), Western region (Bombay) and Eastern region (Kharagpur). These technical education institutes are model institutes in the field of technical education, and they are autonomous institutes of national importance. These institutes provide education at undergraduate, post graduate and doctoral levels.
The first IIT was started at Kharagpur in 1951, with the assistance of the Government of India. Second IIT was started at Bombay in 1958, with the assistance of United Soviet Socialist Republics. Third IIT was started at Madras in 1959, with the assistance from Germany. Fourth IIT was started at Kanpur in 1960, with the assistance of United States of America. Fifth IIT was started at Delhi in 1963 with the assistance of United Kingdom. Sixth IIT was started in Assam at Tejpur during 1990⁶.

1.3.6 Regional Engineering Colleges

Regional Engineering Colleges (RECs) were established as a joint venture of Central and State Governments. They have a national character. They are expected to provide academic leadership for the technical institutions in the respective states. At present there are 17 Regional Engineering Colleges in India. The Question of granting “Deemed to be University Status” for some of the well developed Regional Engineering Colleges and for the rest granting “Autonomous Status” initially by the University Grants Commission could be seriously considered. With appropriate measures, the RECs can overcome the lacunae in the system and it is possible for them to blossom into centers of excellence and play a leading role in helping the Indian industries and revitalizing technical education in the country⁷.

1.3.7 University Colleges

In addition to the above mentioned institutions, there are engineering colleges started and run by the universities. Financial support of these colleges is a concurrent subject i.e., both State and Central Governments will share the
costs. However the output of these engineering colleges is not able to meet the demand for technical trained manpower of the country. At this juncture Philanthropists, Educationists, Societies started engineering colleges under private management. There are 4,950 colleges are running under private management. Most of the private engineering colleges offer self-finance programmes maintained by the college management with the fees collected from students and some colleges get the University Grants Commission grants for some courses.

1.4 Engineering Colleges in Andhra Pradesh

The state of Andhra Pradesh is imparting engineering/technical education to over 2,50,000 students through 711 engineering colleges. Except, Indian Institute of Technology (IIT), all other institutions mentioned in the structure of technical education have been existing in Andhra Pradesh.

1.4.1 The Clientele of an Engineering College Library

The clientele of an engineering college library, like that of other college libraries, includes students, faculty, and other support staff. Needless to say, students’ information needs change and broaden as they move from school to college. More than simply listening in a classroom, students take initiative to educate themselves. The college library ought to be an instrument of this self-education. The primary function of the college library is to make students feel that
the library is an integral part of their careers. In this context, one of the roles of the college librarian is as an information manager.

1.4.2 Objectives of the Engineering College Library

Main objectives of the Management of the Engineering colleges are:

1. To promote quality of the Engineering education.
2. To provide class room instruction to the students.
3. To provide good laboratory facilities.
4. To provide good library facilities.

The college library is primarily a teaching instrument and as such the objectives of the college library are mainly based on objectives of the college itself. The college library is part of the institutions, which, according to S.R.Ranganathan, performs the following:

a) The acquisition of the minimum essentials of factual information and an instruction to the methods of thought and work in some selected fields of knowledge, and

b) The mastery of the subject matter, techniques skills and habits of thought and methods of work is the subject of specialization.

In General, the College Library has the following objectives:
a) To promote the records of human knowledge and to keep them up-date in accordance with the growing needs and requirements of the users of today and tomorrow.

b) To provide individual and group guidance to the readers in the use of library resources with demonstration and how to procure information.

c) To furnish the students with background material on the work to be done in the class and laboratory, thus supplements the instructional programme of the college.

d) To encourage the students to develop for self-education and to introduce them to various types of documents and other media with many sharpen their memory and intellect and many contribute to their personality development.

e) To assist the teaching staff in organizing the syllabus and methods of teaching, and

f) To keep the teaching staff, the latest developments in the fields of their interests and emergence of new subjects reflected to the field of their interests, study and research.

1.4.3 Functions of Engineering College Libraries

Bearing in mind, external factors and consolidation organization has to seek to achieve the aims and objectives of the library. First, the library is the heart of education. Every education advance depends upon its resources and in
larger measure the degree of advance is appropriate to the potential of the library to respond.

Secondly, methods and fashions in education change from generation to generation. But each generation uses the library as a means of realizing its aims. Hence the library remains a great conservator of learning. An investment in a library is a permanent investment. The library is too essential to the maintenance of ideas and to the centralized functioning and thus, the library is the hub if there is free access educational activity in a college. It is the heart of the college. A library work is not a job but a sacred trust. It is a laboratory of humanities. A college library is a reading center for breasting and enjoying books. Without good library, there can be no good college. Books in college library are dead unless they are used. The total educational process in the college must be library oriented.

The U.G.C. Committee (1958)\textsuperscript{10} headed by Dr. S. R. Ranganathan stated the functions of a library and its staff of affiliated colleges and universities. They are:

a) The Librarian and his team have duty to discharge towards the research staff. They should keep themselves posted with the latest books, new periodicals and projecting new through researchers, so that the research became purposeful.

b) The librarian and staff play a very important role in improvement of teaching standards. This can be done by guiding the teachers to latest
books. Disseminating information providing them with abstracts and articles in periodicals and the like.

c) The foremost duty of the librarian is to be the constant. Watch over the knowledge expansion of information. He has to keep a vigilant track make it is his prime duty, acquire important and latest additions with great care.

1.4.4. Educative Functions of the Library

To participate effectively in the college instructional programme, the educative functions of the college library lay in providing materials to the college community adequate for their various needs and purposes.

a) Making easily available through open shelves, orientation, or other efficient means and bibliographically through catalogues; bibliographies and indexes.

b) Making them available for library use and home use through reasonable loan period.

c) By giving formal and informal instruction in the use of the library.

d) By enlightening wide reading through easy accessibility of materials, reader’s guidance, displays and book discussion.

e) By enlightening the cooperation of the faculty in making the library a speedy center.

f) By providing bibliographical information on special materials for the faculty.
g) Borrowing needed materials on Inter-library loan from other libraries.

h) Providing adequate and comfortable physical facilities for study including corrals for work on special projects.

i) By extending the hours of services to meet the needs of the users. The library is expected to support the objectives of the college. Thus the primary function of the college library is to help the college in carrying out its programmes. The college library does not exist as an independent institution itself. Libraries in progressive colleges seek to fulfill the following functions:

a) To provide comprehensive selection of literature covering the requirements of the college syllabus, together with a selection from humanities and sciences to help a student brooded his reading beyond his practical course.

b) To enable students to be trained in seeking collecting and applying information for themselves.

c) To provide the members of the teaching faculty a substantial nucleus of the more advanced type of books and periodicals necessary to enable them to keep abreast of the latest developments in their subjects.

d) To provide reference services to both postgraduate students and staff and to assist them their studies and research activities.

The college library in its use is essentially a “Humanistic Device” and its chief function is to serve the educational objectives of that college, to aid the faculty in the work and to assist the students in their course.
Libraries function as an essential integral component in higher education system. Academic libraries in India are facing a lot of problems due to static budget and exponential price hike of library collections. The library environment is currently undergoing a rapid and dynamic revolution leading to new generation of libraries with the emphasis on e-resources. A lot of efforts have been taken in past few years to overcome this problem of financial crunch by resource sharing through consortia for university libraries.

With the proliferation of engineering colleges in recent years there is an indication that the future of India is bright. But it has its own disadvantage in the sense that quality may be casualty. It is physically and financially impossible for any single library to acquire all published material needed. It is more so with technical education. The rising cost of books, increase in the number of journals and specializations in each subject, inflation, budgetary constraints are the resultant threats for information and publication explosion. Against this, the libraries have a greater role to play in upholding the highest academic standards by offering the best services to their clientele through resources sharing and networking.

The future libraries are going to be digital libraries and e-libraries. Today we have new technologies to meet this challenge and we call it more fashionably “network” INFIBNET is one which is aiming at networking all the University libraries. The existing library staff should be motivated to adapt to modern technologies and learn computer techniques and be partners in this great yagna.
The colleges insist internet connections in the Libraries. Internet connectivity facilitates students to browse any number of sites and download the required material for helping readers.

The Technical Education department has plans to network all the engineering college using high bandwidth with support from the Bharat Sanchar Nigam Ltd., (BSNL). Two separate cables of 64 KBPS would be laid across the state for the purpose. This is being done as a part of the Society for Networking for Excellence in Technical Education (SONET) project that aims to interlink all the engineering colleges through electronic classrooms.

The academic libraries are changing faster than their respective parent institutions. Essentially everything in and around the library is changing such as services, technologies, organizational constructs, etc. Most of the academic libraries in India have been facing financial as well as technological constraints. With the advent of computers, the nature of academic libraries has changed dramatically. Computers are being used in libraries to process, store, retrieve and disseminate information. As a result, the traditional concept of academic libraries are being redefined from a place to access the books to one which houses the most advanced media including CDROM, Internet and remote access to a wide range of resources. This can be overcome easily with the help of change management in the activities of libraries and give better services to the users.

Academic libraries have really understood that consortia based subscriptions is cost effective and also avoids redundant expenses and duplicate
subscriptions. The effort of UGC-INFONET and INDEST–AICTE Consortium are appreciable and will definitely strengthen higher education system in India free and or highly subsidized access to scholarly e-resources will help educational institutions in fulfill their mission in to reality. These are the two major initiatives are revolutionary steps in providing scholarly resources including peer reviewed journals, databases, abstracts, proceedings etc. These efforts are a boon to university library users which will definitely boost the level of higher education system in our country. In the long run consortia approach will be much more popular in user community and that day is not so far behind when consortia approach will expand the country’s information base.

1.4.5. Required Infrastructural facilities, Sources and Services (norms)

Library standards serve as guiding principles and directives according to which library services should be provided. We need acknowledged norms and standards to measure and access library services from time to time and provide stimulus for the future development and qualitative improvement in the college educational system while preparing standards and guide lines, the change in teaching methods, curriculum, methods of evaluation, introduction of seminar method of teaching and educational objectives of the college should be taken into account\textsuperscript{11}.

The standing committee of the University and college libraries appointed by the U.G.C. has approved norms and standards for college libraries. The norms and standards are based on the recommendations of a sub-committee by
Library Resources

The library’s collection of books, journals and other materials be so constituted and organized as to provide direct support to the instructional programme both at the under graduate and post graduate levels. The resources should be of the requisite size, scope and quality. So as to include textbooks with multiple copies of collected reading material, references and bibliographical tools, journals serials, in addition the collection should have standard works on our cultural heritage. It should also be supplemented by wide variety of books, which widen the horizon of the students and also provide recreational reading; there should be a strong and up-to-date reference collection in the major fields of knowledge. The medium of instructions and examination in the college should be kept in view in building the library resources. The library holdings should be checked against standard bibliographies.

1.4.6. The Engineering College Library Collection

The majority of the engineering college library collection requirement is in the form of books and periodicals, collection of non-book materials, possible collection of maps are also essential. In engineering college libraries, book selection is based on the curriculum and on the syllabi of the courses conducted at the college. Library collection should invariably include:

Books
1.5 **Service Orientation**

The services of an Engineering college library should promote

- Conservation of knowledge
- Preservation of culture
- Information dissemination on a wide scale
- Resource sharing
- Information services
- Self-education
Therefore, the engineering college library should promote self-education through the traditional services that all libraries provide.

1.5.1 Services Provided

The users would mostly need facts and background type of information. Most often, they would able to collect information on their own. Sometimes, they would consult the librarian. It is important that a Librarian should devise means to bring additions to the Library to the notice of students and teachers.

The following services are considered as essential services of the college library:

a) Lending,
b) Library orientation,
c) Bibliographic Instruction,
d) Assistance in the use of library catalogue or in the western of documents or reference books etc.
e) Reader’s advisory service,
f) Provision of several or specific information,
g) Inter library loan,
h) Compilation of bibliographies/indexing, services/abstracting services,
i) List of additions,
j) Reservation of documents,
k) Reprographic services.
In practice, Indian College Libraries usually provide lending service and other services are often found missing to a large extent. As far as “Orientation of Freshman” is concerned, college librarians have not been able to do it successfully beyond conducting a tour of the library. Most of the college student’s don’t know how to make an effective use of a college library. The major problem is of how to provide instruction to students so that they succeed in using the library effectively. The students of a college think they can get along with bibliographic instruction because they use the library mainly for textbooks. Bibliographic instruction will get activities. This would also lead to setting of an active reader’s advisory service.

1.5.2 Service to Readers

a) Reading facilities with direct and open access to library material on shelves.

b) Lending facilities to the readers under fair conditions.

c) Proper and adequate reference and bibliographic service to the readers.

d) Formation of library use through reading circles, extension services, book exhibitions, browsing corners, etc. according to local conditions.

e) Fixing of working hours of the library in such a manner that the users have access to the library materials on themselves after normal class hours and during holidays and vacation period.

f) Inter library loan services.
g) Documentation and reprographic services whenever possible.

Services specified at (a) to (i) should be considered the minimum to be rendered by a college library.

1.6 Information Technology and Library Automation

Library automation which started in late 70s in few special libraries has now reached most of the university libraries. Automation is used to reduce the amount of time devoted to repetitive (and often less challenging) activities that must be done in any properly functioning library. Library automation is the application of computers to perform traditional library housekeeping activities such as acquisition, circulation, cataloguing, reference and serials control\textsuperscript{12}.

Information and Communication Technology (ICT) has enormously increased the capabilities of library services, creating options for networking to provide access to vast stores of electronic information, for more sophisticated library housekeeping systems and for greater bibliographic access through services. However, technology can also create further pressures and drains on a library’s resources simultaneous for delivering a vastly advanced service. Problems of obsolescence and compatibility of hardware and software can be costly and the demands for training, both of staff and library users are great.

Information technology presents both new opportunities and challenges before the library profession as it creates new possibilities for the development of new products and delivery of services. It has also changed the basic
assumptions about organizational structure, working relationships and the quality of library services. Some of the characteristics of the current and emerging information environment in which libraries have now to function include greater complexity in locating, analyzing and linking information, sustained financial investment for technology, lack of standardization of both hardware and software. The new information environment requires that librarian’s role should be characterized by increased visibility and vitality. Librarians need to be well integrated into the activities of their institutions and the community they serve. (ICT and its impact on different spheres of library activities have been presented in Chapter-3).

1.7 Librarian – Profession – Attitude

The library must have a trained and qualified librarian and the librarian should have attitudes like love for books serving the readers etc. One of the responsibilities of the librarian is to understand the behavioral pattern of the user; so that he can adopt an appropriate approach to help them fruitfully. The librarian has an overall responsibility for proper functioning of the library.

1.7.1 The Role of Librarian

“The main role of the librarian is to help students to learn when they are away from their teachers through creating a learning environment”\(^{13}\). The idea is to establish conditions conducive for learning and to maximize the utilization of available materials. For achieving this, the librarian should:
1. Be personally acquainted with his teaching colleagues and know as much as possible about their characteristic methods of teaching.

2. Make himself familiar with the curriculum and keep informed about current changes to update his materials.

3. Remind faculty members of the varied opportunities for using library resources in teaching.

4. Know what tools and materials the instructor is using so that students are not only given assistance in using them properly but encouraged to learn other tools.

5. Bring new materials and library services to the attention of the faculty.

6. Acquaint faculty with unique and unusual materials available in the library’s special collections that might profitably be used by the students.

7. Provide resources necessary for research in the fields of interest of the academic staff.

8. Keep the faculty members abreast of developments in their fields for teaching.

9. Bring documents, students and the academics together under the environment which stimulate reading for pleasure, self-realisation, personal growth and development and the cultivation of intellectual excellence.
10. Seek teachers help in formulating library rules and regulations.

11. Plan library orientation programme with teachers and correlate it to instructional situation in their classrooms.

12. Make recommendations for improving the collections of primary and secondary sources for filling up gaps in literature and also seek teacher's help in weeding out materials in library collections.

13. Provide patient, studied assistance to individual students in using reference and bibliographical tools.

14. Provide if possible, a seminar room for advanced classes where it is necessary to use library books and bibliographies in connection with the class discussion.

1.7.2 Librarianship as a Profession

The art and science of managing libraries is called “Librarianship”. The essential function of librarianship is to make available “information” in its widest sense, serving leisure as well as work needs, for the benefit of people seeking day to day information. Librarianship essentially concerns the problem of storage, retrieval and access to documents in other words, information.

It basically refers to:

1. Document collection development.

2. Technical processing for organisation of documents.

3. Providing reference and bibliographic access to documents.

4. Providing physical facilities for reading.
5. Handling the different states of knowledge behaviour of the users of the library.

“Profession means an occupation, especially on requiring extensive education in a branch of science. A Librarian does not only come into contact with covers of knowledge but also experiences the pleasure and thrill of providing right information to right person at right time. Librarianship thus can be a great profession for those who enter it with seriousness of purpose”\textsuperscript{14}.

Librarianship is, definitely, an occupation, which demands specialized knowledge and skills. Its study is based on a systematic theory which delineates and supports the skills that characterize the profession. It has its professional organizations which promote excellence in the work of the members, influence public sentiment and support and try to raise it to a position of dignity and social standing.

1.7.3 Attitudes of the Librarian

The fundamental Attitude of the Librarian:

- The foundation of a librarian’s work lies in pursuit of his duties in accordance with the known expectations of society in general and the needs of the users of his library in particular.

Responsibility for users of the library:

- A librarian should not discriminate between or against library users.
- A librarian should respect the confidentiality of each library user.

Responsibility for Library Materials:
• A librarian should honour the freedom of libraries in collecting, preserving, and proffering library materials.

• A librarian should make it his professional aim to familiarize himself, as far as possible, both in and out of his library, with the materials recording human knowledge and experiences.

Responsibility in Training:

• A librarian should apply himself to necessary professional training, both as an individual and as a member of a group.

Responsibility as a member of organization:

• A librarian should actively participate in the formulation of policy in the operation and service programme of his library.

• A librarian should cooperate with other librarians in efforts to develop group professional competences.

• Librarians should make efforts to secure labour conditions that are appropriate for the development and pursuit of professional library services.

• Librarians should make it their aims to develop and maintain understanding and cooperation among libraries of all kinds.

• Librarians should make due efforts, in association with others, to stimulate the development of the cultural environment in society and the community which they serve by cooperating with local residents and with members of appropriate groups and organizations.
• Librarians should make every effort to contribute to the development of the whole culture relating to publications and publishing that is responsive to the needs and viewpoints of the public.

1.7.4 Positive attitude and Negative Attitude

Positive Attitude: A person / people with positive attitude is / are live a fruit of all seasons, and they have certain personality traits that are easy to recognize. They are caring, confident, patient and humble. They have high expectations of themselves and others. They anticipate positive outcomes.

Benefits of Positive Attitude:

• Fosters team work.
• Solves problems.
• Improves quality.
• Makes for congenial atmosphere.
• Breeds loyalty.
• Reduce stress.
• Makes for a pleasing personality.
• Helps a person become a contributing member of society and an asset to their country.
• Fosters better relationships with employers, employees, and customers.
• Increases productivity.
• Increases profits.
**Negative Attitude:** People with a negative attitude have a hard time keeping friendships, jobs, marriage and relationships. They create a negative environment at home and work and become a liability to society. They also pass on their negative behaviour to others around them and to future generations.

**Consequences of a Negative Attitude:**

- Bitterness.
- Resentment.
- A purposeless life.
- Ill Health.
- High stress level for themselves and others.

**1.7.5 Steps to build Positive Attitude:**

*Basically, there are three aspects to build and maintain a positive attitude:*

1. Become aware of the principles that build a positive attitude.
2. Desire to be positive.
3. Cultivate the discipline and dedication to practice those principles.

For building and maintaining a positive attitude, one needs to consciously practice the following:

1. Step-1: Change focus, look for the positive.
2. Step-2: Make a habit of doing (any thing) it now.
4. Step-4: Get into a continuous Education programme.
5. Step-5: Build a positive self-esteem.
7. Step-7: Learn to like the things that need to be done.
8. Step-8: Start your day with a positive.

1.8 Significance of the Present Study

The development of Engineering College situation in Andhra Pradesh creates lot of interest among the young students in this region with the emergence of large number of corporate colleges. The strength and standards of the Engineering colleges and services provided by the libraries attached to these colleges are the area of interest at present.

The libraries attached to the Engineering colleges are intended to serve the academic staff and students at the graduate level and play an important role in teaching and career development of the students. The resources of these libraries must be adequately developed and efficiently organized to ensure their maximum utilization. The dissemination of information through a variety of services based on the particular needs or requirements of the users should be the main objective of the libraries.

Libraries’ Commitment to Information and Communication Technologies (ICTs) has traditionally been led by two complementary beliefs: first, that once new technologies are adopted, services to patrons will be improved; second, that after implementation is completed and the potential of a new ICTs has been
achieved, the anticipated fiscal benefits and those associated with efficiency and productivity will begin to be realized.

Frequently missing from this belief system is a consideration of the effect that employees’ willingness to adopt new innovations might have on successful diffusion and the realization of these two beliefs.

Technological innovations are introduced to the library with the intention of providing better library service and increasing efficiency of library work. Implementing information communication technology (ICT) in the library depends largely on librarians’ attitudes towards it. The application of ICT has caused significant changes in libraries: automated cataloguing, circulation, information retrieval, electronic document delivery, and CD-ROM databases, (for example). The advent of the Internet, digitization, and the ability to access library and research materials from remote locations created dramatic changes by the end of the twentieth century. The start of the new millennium has brought in tremendous change in the library environment through - expert systems, wireless networks, virtual collections, interactive Web interfaces, virtual reference services and personal Web portals. There have been fast and significant changes in librarianship, where digital and electronic libraries complement, and in some cases replace, traditional libraries.

Academic libraries need more attention and support, than ever, to be more efficient and resources providing for the students and staff. Studying the attitude of librarians in these libraries towards marketing library services will be helpful in
determining the best marketing plane and strategies to follow according to the study results.

Academic libraries at the present time are facing great difficulties in the field of providing information as competition is more aggressive than ever. The increasing use of electronic services is making the academic libraries less needed. Therefore these libraries are in desperate need for a powerful method to promote and market the use of their resources and services. However, the use of business methodologies in libraries is affected by the attitude of librarians. This attitude of librarians can be a major obstacle in the face of marketing library services in academic libraries.

The library profession attracts individuals of varying ages, varying degrees of experience and a range of technological capabilities, all of which influence the way they perceive new information and communication technologies. It is the role of librarians to introduce new technologies to library users, instruct in their use, and help patrons recognize meaningful ways to benefit from ICTs. Therefore, it is important to understand the attitude of librarians towards ICTs, and the factors that contribute to ICTs' perceived innovativeness, is helpful in planning, introducing, and incorporating ICTs successfully into the library.

So far, the focus of research in library and information science has been on user-centeredness, yet the focus has traditionally been on the library patron and on information-seeking skills and behavior. Unfortunately, librarians have not been actively acknowledged as users, and therefore research that focuses on
librarians as adopters of ICTs is scarce. This study is taken up recognizing the key role that the librarians’ play in the diffusion of innovation in the library, and also recognizing the increased need to understand their behavior towards new ICTs in their professional life as a precursor to their role as adopters and disseminators within the library setting.

In this background, the present study has been taken up with the main objective of studying the professional attitudes of librarians towards Information and Communication Technology in Engineering College Libraries located in the 3 north coastal districts of Andhra Pradesh.

1.9 Organization of the Thesis

The present thesis is organized into 5 chapters as detailed below:

Chapter – 1: Introduction

An introduction on the Library, types of libraries with emphasis on academic libraries, development of Engineering Colleges along with significance of the present study are presented in this chapter.

Chapter – 2: Study Design & Methodology; Review of Literature

Study design comprising of sampling procedure, methodology adopted, research tools used etc. along with a review of earlier relevant studies is detailed in this chapter.

Chapter– 3: ICT and its impact on Libraries and Library Professionals
This chapter presents a detailed note on the concept of ICT, different means of ICT, impact of ICT on library, library activities and professionals working in the new technological environment.

**Chapter – 4: Observations of the Present Study**

This chapter comprises of a discussion made on the observations made from the study. Data gathered is analysed, tabulated and supplemented with graphical presentations.

**Chapter – 5: Summary & Conclusions**

Summary of the report along with major findings and implications of the study are included in this chapter.
REFERENCES


5. SARKAR, NR. (1945). Ministry of education (Committee reports 1945), New Delhi, 124-125.


