1.1 Introduction

Academic or educational libraries as those libraries that are mainly found in school and colleges institutions, or universities. But the present study represent academic college libraries these libraries are established to support learning, teaching and research processes. There are 691 colleges are affiliated to the Mumbai University spread in Mumbai City and it’s suburban, Thane, Raigad, Ratnagiri and Sindhudurg districts of Maharashtra, out total number of colleges near about 20 to 22% are government aided and remaining are self-finance colleges. Over the past 20 to 25 years, academic college libraries have been influenced by change in ICT. The change is still increasing speedily in this area.

The traditional libraries have undergone sea changes over the past few decades due to rapid development of information communication technology and its impact on libraries. Due to continue growth and impact ICT, the libraries are going to digital day by day. Library science professional today need to acquired knowledge & skills in ICT. In globalizing world, the worth of ICT to community normally information professional in particular cannot be over emphasized. In fact, is now very hard to imagine a earth lacking IT.

1.2 Information Technology

Technologies which are used in information handling is called information technologies is electronic technologies used for collecting, storing, processing and communicating information. Information Technology is the combination of technologies and systems such as computer technology, communication technology, and storage technology, multimedia technology and other devices for storage, retrieval and dissemination of information a library. (Jadhav Vijay and Patil Vinay 2013)
1.3 Components of Information Technology

1.3.1 Computer Technologies

Computer is an electronic tool which works with speed and accuracy. It stores, process, and retrieves information in a very efficient way. Computer process information that can be represented in many forms including numbers, letters, verbs, sounds, picture, formulas and mathematical signs. This process is controlled by a set of programme called software which provides instructions to computer by which the components of the computer are workable. Fax, networking, email, internet are the tools for transmitting long distance messages which are being used kin this time.

1.3.2 Telecommunication Technology

Telecommunication refers to long distance transmission of information. The information to be transmitted by telecommunication system should be in the form of voice, symbols, pictures or combination of any of these. Today telecommunication system has become the essential factors in the speedy growth of computer based library systems. New communication technologies like electronic mail and telex systems are useful for interlibrary lending.

1.3.3 Internet

The Internet is the world largest computer network, the network of networks. The internet today gives access to an overwhelming amount of information, data and electronic information services provided by it ordinary users. Internet is consists of millions of domestic, academic, government and business network which together carry various information such as e-mail, file transfer and other documents in e-format. Internet is highly effective tool for communication, information storage and dissemination.

1.4 Meaning of ICT

The term ICT describes use of computer based technology and internet to create information and communication services available to vide a range of users. ICT are hardware and software that enabled society to create, collect, consolidate, and communicate information in multimedia format and various purposes. The term used broadly to address a range of technologies, including telephone and emerging
technology devices. Central these to internet, which provides mechanism for transporting data in a numbers of format including text, images, video & sound. (Kumar P.S.G, 2000)^2

1.5 Elements of ICT in Academic Libraries

ICT is a wide term that wraps vide range of technologies. It is convergence of computers, communication and microelectronic best techniques. The technologies and devices like radio, telegram telephone, TV, fax, mobile phone, LAN, internet, mail, ISDN etc.

Satellite communication & Video conferences techniques are main part of ICT with the help of LAN, CUSAT community easily shears the information. Telephone and other devices play important role in library services like SDI, Interlibrary loan, references and online information retrieval, ISDN broadband has increased the capacity for data transmission which facilitated introduction of new services such as fax, email etc. cheaper data storage media has increased the storage capacity of academic college libraries.

1.6 ICT Application in Academic Library

In present academic college libraries, information communication technology has drastically changed the management of the information resources or housekeeping practices as well as the way services are delivered. While general IT applications, tool and integrated library management systems are largely used in housekeeping practices like Acquisition, Serial Management, Cataloging classification, Circulation, Audio-visuals management ,Information storage and retrieval, reference and information service.

The role of college librarians or library professionals is changing from an intermediately to facilitator and enabler. ICT enables one

- To improve efficiency of library functions
- To capture, store, manipulate and distribute information
- To retrieve and disseminate the information in user as they requested format
To provide and introduce new services renew the existing services by providing more rapidly access to the resources, by overcoming the time barriers and space.

To improve the cost effectiveness of library operation

To support functions of library like circulation, serial control, acquisition control, stock maintains, and daily routine office works and developing in house database

1.7 Need of Information Communication Technology in Academic Libraries

Today academic libraries all over the world facing lot of opportunities and challenges. Now a day libraries have to offer multiple services and change their roles keeping in view the fast growing information. ICT has a great impact on the library services. Following are the important reasons for the need of ICT in college libraries in the information era.

Information explosion age, information is being published in electronic appearance; it turn out to be essential to prepare the college libraries to optimize the employ of information, its enables one;

- To detain, store manipulate, and distribute information.
- To introduce and provide latest services.
- To provide need-based, tailor-made, browsing and retrospective search services.
- To utilize and update the staff for providing better information services.
- To cheer networking and resources sharing.
- To have access to a number of local, national and international e-journals.
- To digitize the documents for long term preservation and for space saving.
- To support and improve the efficiency of library functions.
- To multi-user system to access the required information.
- To access Union catalogues.
- To get better the cost effectiveness of library operations.
- To develop storage capacity.
1.8 Academic Library Area Where Information Communication Technology can be use.

- **Acquisition:** - Acquisition list/accession list – Order file/Report
- **Serial Management:** - Serial check in-out and claiming – Union holding list.
- **Cataloguing/ Classification:** - Catalogue card label production-Online Catalogue.
- **Circulation:** - ICT made essays circulation work like issuing, return, reservation, fine for late return of reading material.
- **Management:** - Accounting/Budgeting, word processing and mailing.
- **Information Retrieval and Storage:** - Database Construction, Online database Searching, Downloading/uploading, Indexing and Abstracting.
- **Reference/Information services:** - Bibliographic listing, Library instructions, Public access/computer literacy.

1.9 ICT based user services

Some college library users are adopting electronic habits, making increasing use of the new ICT including computers, the internet, the web, the intranet and other technologies. Libraries are also providing various ICT based services to their users, including the following:

- Web access to OPACs
- Electronic document delivery
- Information delivery to user
- Online instructions
- Online readers advisory service

1.10 Impact of ICT on academic library

ICT brought a new energy and change in the libraries and use of information. In libraries, IT professional has helped libraries to provide added value, quality of information and remote access to information resources at global level.

- Changes in the job description
- The changing nature of the academic library
- Changes in the information seeking behavior of users
Impact on collection management
- Reduced cost of security and man power

1.11 Challenges of ICT

- Changing role of users
- Funding of libraries
- Lack of ICT technical background among library administrators
- Copyright management
- Information access
- Preservation of digital information resources
- Legal deposit

1.12 Changing Role of library Professionals

The information technology has transferred the role of not only college libraries but also library professionals in the changing environment in which they how work. College library professional are working under big pressure to become more efficient to deliver more capable services to the users. Professionals must be keen to stay at the forefront of in innovation of the library world. LIS professionals need to be confident and competent that they can get ready for new professional roles. Knowledgeable librarian have got to be a professional skilled, techno well-read, web usability knowledge manager, guide, experts, coach, marketer, service provider, educator, and many more. (Basavaraja K 2013)³

1.13 Sources for Professional Competencies Enhancement

Library professionals have a wide range of channels and way to develop their professional competencies and manage technologies effectively. The important ways for improving professional competences are:

- Acquiring formal qualifications
- Reading professional literature
- Pursuing doctoral research
- Tours and visits to well managed ICT enabled libraries.
- Membership to professional bodies.
- Attending professional meetings, workshop, conferences & seminars
Presenting papers in conferences and seminars
Organize Seminars and Conferences in college for library professionals
Writing papers in periodicals and books
Personal interactions with expert fellow professionals
Attending workplace programs
Participation in specialist group
Attending induction programme like INFLIBNET
Attending staff training and development programme organized by Staff Academic College, Hyderabad
Undertaking research and development projects.
Attend refresher courses and orientation programme

Library professionals face complex challenges posed by rapid revolutionary advances in ICT. Libraries have to redesign their position to meet evolving needs. Professionals need to implement new practices and new technologies, manage change and improve performance and competencies to face future challenges of knowledge society. They need to develop professional competencies to adapt changing technologies in order to deliver timely, value added quality content and top class services to the users from their desktop. Library professionals have to recognize the expanding nature of the technological changes and professional challenges that they face in the modern world and realize to improve the range of professional competencies required to adapt and manage the changing technology successfully.

1.14 Problems being faced by library Professional

When we are thinking implementation information technology in library at that time we have face lot of problems to use and accept it in academic library are as follows:

- Lack of dependable information technology infrastructure in academic library.
- Lack of research experienced by the faculty members and libraries.
- Lack of support policy
- Lack of financial support
- ICT infrastructure while the institutes of national importance, universities have fairly better ICT infrastructure, the situation in college in India is still to improve. College libraries need to do a lot in terms of its ICT infrastructure like networking, workstations, internet access etc.
- Inadequate collection
- Inadequate human resources i.e. well equipped ICT laboratories.
- Lack of leadership qualities and information gap
- Lack of co-ordination and co-operation among the staff that make it a bog task
to managers or library professionals to manage the digital resources.
- Lack of skilled and IT trained manpower.
- Lack of policy for training and retraining of library staff.
- Information literacy problems
- Copyright and licensing issues.
- Barriers in Digital preservation
- Large amount of information to resources to be maintained for which
professional skilled persons are required who should constantly update their
knowledge.
- Constant changes in hardware, software and other technologies required for
access.
- Selection of digital resources: Budget, Licensing, Copyright, ownership,
Human Resources, Preservation, and media used to store digital materials such
as tapes, hard drive etc.

1.15 Role of professional Library staff in future:
The importance of information content development has already been recognized.
This is evident from several thousands of databases available in various forms as
online databases, CD-ROMs/Multimedia databases etc. These are marketed in various
countries all over the world. Information content development requires skills in data
organization, structuring and presentation of the content in a helpful format with the
help of information technology to enable easy retrieval of required information by the
users. Development of all these skills for library staff is required to provide
computerized services to in the academic libraries. Another skill that future library
professionals must develop is to analyze the information queries and provide
information, which directly answer the queries rather than providing documents that
contain answers to the queries. In other words, the professional library staff will be
more and more involved in information analysis and repackaging rather than in
providing documents. The expected changes in the role academic library staff are
described as follows. (Mane Sanjay 2012)
The library professional staff will be knowledge managers and information analysis in new millennium libraries. They will work as an integral member of the Research authorizes teams that need these roles and will with those teams rather than in the library.

- Professional library staff will help corporate knowledge workers in decision making as they know the sources of information

- The staff will assist students, teachers and researchers by taking away the task of information gathering and organizing from them.

- The staff will perform the creative jobs of information product development & product synthesis, as a result providing information keys and not just information.

The staff will have to play the role in future academic libraries in the following manner.

- As a provider of access to information and as an integrator of information and as an information intermediary.
- As a user of current information technologies for effectively and efficiently performing the job
- As a provider of information that contains the solution, the staff will increase necessary analytical skills and general understanding of the disciplines which information is to be provided and
- The staff will have to develop appropriate information and knowledge bases and information product to meet the information requirements of the users.

1.16 Attitude, Library Professional and use Information Technology

An attitude is a tendency to respond in positive or negative way to someone or something in one’s environment. When you say, for example I like to use computer or I don’t like to use computer an attitude is being expressed. An attitude is predisposition to react to a situation, person, or concept with a particular response.
This response can be either positive or negative. It is a learn reaction—one that result from an individual past objection, direct experiences, or exposure to others attitude. For example, library professional says “I love to use internet and e-mail” thus the communicating to others and general attitude the information technology, some library professionals develops their skill for information technology. (Pareek Udai 2007)

Attitude always ‘towards’ something. For example, you may say that Mohan has a positive attitude towards use of information technology although attitudes are generally affective or emotional in nature they also have a cognitive element and a action element, in terms of acting or behaving on the basis of that feeling. For example my exposure to my job gives me enough knowledge about it. Then I develop a feeling for it. (I like it or I don’t like it) finally act on feeling –stay on in my job or quite it. So generally attitudes lead to behavior. Gupta Rakesh (2001)

1. 17 Objectives of the study

Objective of this study is to examine the availability, use, acceptance and attitude of library professionals towards information technology in library activities in Mumbai university jurisdiction area in Maharashtra state.

The exact objectives of the study are: -
1. To investigate the levels at which IT infrastructure is available in academic colleges libraries located in jurisdiction area of Mumbai University.

2. To examine the attitude of library professionals towards use of IT in academic colleges’ libraries located in jurisdiction area of Mumbai University.

3. To investigate the main factors affecting attitude of library professionals towards use of IT in academic college libraries located in jurisdiction area of Mumbai University.

4. To examine the involvement of library professionals in decisions related to implementation of IT in academic college libraries located in jurisdiction area of Mumbai University and its impact on attitude of library professionals towards use of IT in libraries.
5. To examine expenditure on IT and its sufficiency in relation to library needs in academic college libraries located in jurisdiction area of Mumbai University.

1.18 Hypotheses of the Study

The hypotheses are a formal affirmative statement projecting a single research outcome, a tentative explanation of the relationship between two or more variables. The hypotheses may be descriptive, explanatory, statistical or null. In this research the hypotheses are expressed in a null form so that they can be accepted after it is put to test.

The null hypothesis assumes that two or more treatments are equally effective or that corresponding parameters of two or more population are equal. It indicates that there is no significant difference between two treatments or methods or operations. Preference is given to null hypothesis because it eliminates personal bias and prejudices.

Based on review of literature and general observation it is hypothesized that:

1. Level of IT infrastructure availability in rural academic college libraries would be lower than in urban academic college libraries located in jurisdiction area of Mumbai University.

2. Library professionals in urban academic college libraries will have a more positive attitude to use of IT in libraries as compared to library professionals in rural academic college libraries.

3. In urban as well as rural academic college libraries, library professionals with computer and IT training will have more positive attitude towards use of IT in libraries.

4. In urban as well as rural academic college libraries, library professionals involvement in decisions related to implementation of IT will influence their attitude towards to use of IT in libraries.

5. Expenditure on IT would be higher in urban academic college libraries located in jurisdiction area of Mumbai University as compared to rural academic college libraries.
1.19 Study Design and Research Methodology

The purpose of present part is to illustrate the methodological steps taken to obtain data as well as to describe the measures used for both the independent variable and the dependent variable and the instrumentation. Kothari C. R. (2006)

1.20 Study Design

The spotlight of present study is to examine the attitudes of library professionals towards use and acceptance to decide the interrelationship between different variables, and to indentify the organizational and demographic variables and characteristics of library professionals affecting their information technology attitude.

1.21 Population and Sampling

The focuses for present study are the library professionals who are working in government aided academic college libraries under the jurisdiction of University of Mumbai. The librarian were selected to complete the tools because only they are actually taking part in obtaining fund, decision-making, library automation and implementation of information technology use and technological development in the library.

The list of 178 academic libraries (means list of colleges) is available on website of University of Mumbai and also on the website of Joint Director of Higher Education, Mumbai Region (only list of Govt. of Maharashtra aided colleges) which are aided by the Government of Maharashtra. The e-mail, mobile numbers and postal addresses were also available on MLOSC group study circle web. Another reason to cover only academic college libraries was their most important role in introducing latest information technologies in libraries.

Aided Colleges were divided in two parts first Mumbai city and second rural area like Thane, Raigad, Ratangiri and Sindhudurg Districts which called as a Panvel Region of Joint Director of Higher Education, Mumbai Region. 88 colleges in the Mumbai city and 90 colleges are in rural area. Convenience sampling a non random technical was adapted to select sample. Among this selected 75 urban and 75 rural colleges sent questionnaire to fill up by courier, postal services of government post office, by personally visit to several colleges which are near the working place of research.
scholar. Questionnaire also posted on portal of Maharashtra Librarian Online Study Circle Group (New name is Indian Librarian Online Study Circle Group) and some of them contacted by telephone/mobile.

1.22 Data collection tool/Instrument

The researcher adopted a model survey instrument to find out attitude those used by Yaacob (1990), Nair 1998), Ramazan M (2010), Tenjam T. (2002) and make use of them in preparing a draft of the data collection tool.

The attitude part of instrument of the instrument used Temjem (2003) and Ramazan M (2010) was lot of relevant to the study, However, some changes were made to update and the IT and attitude part before implementation of the instrumentation in the present study.

Likert scale is accepted to measure attitudes because it is simple and dependable.

1.23 Dependent Variable

For this research purpose, Library professionals’ attitude towards the use and acceptance of IT was used as a dependant variable. Respondent’s attitudes were checked on 32 IT related attitude testimonials ask on a 5 point Likert scale, scoring pattern of the tool qualification of the response is necessary so as to apply statistical technique for analysis of data for measuring each of the items a five point scale was used. Tools were consists of positive as well as negative statements and scoring for those are follows:

<table>
<thead>
<tr>
<th>Response category</th>
<th>Positive Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree [SA]</td>
<td>5</td>
</tr>
<tr>
<td>Agree [A]</td>
<td>4</td>
</tr>
<tr>
<td>Undecided [U]</td>
<td>3</td>
</tr>
<tr>
<td>Disagree [D]</td>
<td>2</td>
</tr>
<tr>
<td>Strongly Disagree [SD]</td>
<td>1</td>
</tr>
</tbody>
</table>
1.24 Independent Variable

Attitude towards IT were analyses in relative to the independent variables and which drawn from the library professionals’ characteristics.

It is necessary to define all the terms (variables) and concepts in order to avoid misunderstanding and bring clarity in the meaning envisaged by the researcher. The investigator has defined the main variables, giving both conceptual and operational definitions.

Conceptual definitions are those which are taken from dictionaries or encyclopedia, for better understanding, clarity and un-ambiguity, while operational definitions are constructed or operationalised as per the context of the area of study. For the present study the investigator has defined operational definition of related terms.

- **Available Faculty** - to know which faculties (Arts, Science, commerce, Law and Education) are available in academic institution.
- **Total No. of Students** - to refer students’ strength in academic institution at the time of study.
- **Type of college** - refers to the academic institute is Government /Government aided.
- **Location** - to identify college location whether in Urban/Rural area.
- **Information of Library Professional** - to discover their latest library science qualification; and software training.
- **Gender** - being a male and female and is also to understand status of male and female in library.
- **Total Collection** – refers to the number of books, non-books material available in the respondents’ library at the time of study.
- **Availability of Information Technology, Usage of Information Technology** – total number of available computers, IT tools, software, hardware and percentage of completed library automation i.e. IT’s use at the time of study.
- **Library expenditure** - refers to the amount allocated for purchase of hardware, software and other technologies equipments during academic year 2012-13.
Authority- in academic library there are many authorities such as library professionals, library committee, Principal and management members at the time of acquisition hardware/ software/electronic resource their involvement while selecting the technologies.

1.25 Details about Data Collection Tool or Questionnaire

The questionnaire was separated into following four sections

Section A: General Information: In this section question were asked to get general information of college. Five questions were asked, in first question for name of institution/college, second for available faculty (means which type of college like Arts, Commerce, Science, Law etc.) option were given like Arts, Commerce, Science, Law and Education. Respondent had to Tick proper option. Question third was asked for how many students are learning in college. The question indicates total number of students in college. Most important question was number four which was divide colleges in urban or rural categories. All these questions were asked to got proper general information of college.

Section B: Detail of the Library: This section of the questionnaire was devoted for library details or information of the library detail. Three detailed and briefly questions were asked. First question was details designation of professional whether he is a librarian or assistant librarian and personal detail about qualification which he obtained, experience, gender male or female, age, whether he had taken any software or computer training, email, mobile/ telephone etc. Second question was asked about detail of library means number of staff and how many were computer literate. Third question was indicating collection of library. It was also indicate that whether the college goes with time. In the third question number of books, magazine, journal, e-books, volumes of journals, Thesis CD/DVD, patents, e-journal, Technical reports, full text journals, dissertation, project reports and other

Section C: Availability, Usage of Information Technology, Expenditure & Decision-Making.

The section C was the central part study, it was collecting checking availability, use and acceptance of information technology as well as amount spent last year purchase of hardware, software, IT equipments, maintenance and stages of decision making.
First question was testing availability and number of computers/laptops and tablet PC. Second question was checking availability of hardware and IT tools in the library like Printer, scanner, photocopier, barcode, CCTV Camera, security system, UPS/Inverter, DVD player, Pen drive, webcam, RFID, e-book reader, LCD/LED TV, LCD Project swap card, wireless LAN.

Third question was divided in A to J part of small questions checking software and IT application in the library like email, internet and Intranet LAN, speed of internet, how does library access internet, availability network resources, which software is available for library work or library management, if available then name of company, where the OPAC, won website of library, any institution repository etc; some option were given with necessary questions.

Fourth question was related to status of library automation. Library automation is an important step of use of information technology in the library activities, because without automation use of information technology not possible. Respondents were asked about percentage of library automation and options like 25%, 50%, 75% and 100% were given.

The fifth question was divided in 8 sub question which were devoted to check use and acceptance of information technology. Questions like Computer/Laptop, CD/DVD, Photocopiers/Printers, Audio/Video Materials, Online Catalogue, E-mail, internet, Online Databases were asked to respondents in Likert scale to understand their attitude towards use of information technology in library. It was ranging from ‘never use’ to ‘always used’.

Sixth question was asked to know library expenditure on purchase and maintenance of IT based equipment & software in last three years. It was two parts first actual expenditure, options were less than Rs. 1Lakh, Rs.1Lakh to 2 Lakh, Rs. 2 Lakh to 3 Lakh, R. 3 Lakh & more and in second it was asked that what was professionals expected amount for IT.

Seventh question was related to involvement of library professionals in decision-making policy for acquisition of Hardware, Software and Electronics Resources. Options were given like Library professionals, Library Committee, Principal and Management of college.
Section D: Attitude towards Information Technology

It was last section of data collection tool. 32 statements were given related to information technology and requested tick mark the number to understand their option, viewpoint and attitude through likert scale of 5 point like SD - Strongly Disagree, D - Disagree, U - Undecided, A - Agree, SA - Strongly Agree.

1.26 Data Collection

Primary data was collected with using of survey questionnaire. Filled questionnaire received by post and email. After collecting the information the completed questionnaire were checked the omission and commissions have been rectified by the correspondence, after checkup 53 from urban and 53 from rural respondents of selected area response have been entered by using excel programme prepared by expert statistician and feed the data by the researcher.

1.27 Scope, Delimitations and Limitations

Present study are the library professionals who are working in government aided academic college libraries under the jurisdiction of University of Mumbai. The librarian were selected to complete the tools because only they are actually taking part in obtaining fund, decision–making, library automation and implementation of information technology use and technological development in the library.

Delimitations are the boundaries of the studies which restricts the conclusions of the study the sampled population. It is necessary to delimit the scope so that the research is narrowed down to the specific area and growth.

Limitations are those conditions further than the control of the researcher scholar that may put boundaries on the conclusions of the study and their application to other situation.

The present research focuses attitude of library professionals toward use and acceptance of information technology in library activities in academic college libraries under the jurisdiction of Mumbai University. The study has follows limitations.

The subjects of the study are only the library professionals because of their key role in information technology application in libraries, while other important people related to the college library such as library clerk, library attendant, Information technology
section, member of the library committee, Vice-Principal, Principal and management institutions were not covered due to geographical dispersion and large population.

1.28 Chapter Plan

Chapter I - Introduction

Introduction academic library, meaning of information technology, Components of Information Technology, Elements of ICT in Academic Libraries, Application of ICT in academic library, Need of information technology in academic library, Academic library area where information communication technology can be use, ICT based user services, Impact of ICT on academic library, Challenges of ICT Changing Role of library Professionals, Sources for professional competencies enhancement, Problems being faced by library Professional, Role of professional Library staff in future, Attitude of Library Professional Towards use Information Technology

Chapter 2 - Literature review

In Review of Literature researcher has taken review article, research paper and published thesis from national and international journals, proceedings of the national and international conferences, seminar and meeting, numbers of website dedicated for the research news, papers and articles. The study of researcher was related to the attitude and use information technology in library activates. So literature review frame in attitude of library professionals and different parts of information technology in academic library as Attitude of Library Professional Towards ICT, ICT in Academic libraries, Library Automation, Barcode/RFID technology, Network technologies & Internet, Web 2.0 & Library 2.0, E-Resources, Library consortia, Institutional Repositories, Digital Library, Mobile-Learning, Cloud Computing and libraries, E-literary, ICT Training and end of the literature review concluded how they connected with each other.

Chapter 3 ICT - in Academic libraries

Introduction, Components Information Technology in Academic like Library Automation, Barcode/RFID technology, Network technologies & Internet, Web 2.0 &
Library 2.0, E-Resources, Library consortia, Institutional Repositories, Digital Library, Mobile-Learning, Cloud Computing and libraries, E-literary, ICT Training and finally concluded that these are major components of information communication technology to application in academic library activities to provide proper and current information to user. Success of use of information technology in academic library is depended on the quality, strength and coordination of all these major components.

Chapter 4 Data Analysis,

Introduction, Procedure of descriptive analysis, Inferential Analysis

Chapter 5 Findings, suggestions and future study

Conclusion

The information technology has transferred the role of not only college libraries but also library professionals in the changing environment in which they how work. College library professional are working under big pressure to become more efficient to deliver more capable services to the users. As the role of academic library professionals is changing to face the new challenges posed by information technology. Professionals must be keen to stay at the forefront of innovation of the library world. LIS professionals need to be confident and competent that they can get ready new professional roles. As well-informed librarian must be a professional expert, techno literate, web usability expert, knowledge manager navigator, trainer, educator, marketer, service provider and many more. Knowledgeable librarian must be a professional expert, techno literate, web usability knowledge manager, navigator, experts, trainer, marketer, service provider, educator, and many more.