

---

## APPLICATION OF INFORMATION COMMUNICATION TECHNOLOGY IN COLLEGE LIBRARIES OF BARAK VALLEY (SOUTHERN ASSAM)

Manoj Kumar Sinha

Shankar Kumar Chakarborty

Jayanta Bhattacharjee

### Abstract

*Library is part and parcel of any institution. It is soul of any learning institution. Library is associated with all academic or technical institution, which is pivot of teaching-learning process. College library plays an important role in providing overall library and information services to the students. We have just entered in new millennium and we have lot of challenges before us for keeping us in pace with modern development in information technology which have brought information explosion and information revolution.*

**Keywords :** Information Communication Technology (ICT), College Library-Barak Valley, College Library -South Assam , Library Automation , Library Networking, INFLIBNET

### 1. Introduction

North Eastern Region (NE Region) of India has attracted attention of the government of India since two decades for overall development of the region which is comprising of seven states which is popularly known as seven sisters and recently in 2001 the eight State "Sikkim" has been included in the North Eastern Region. These states are viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.

North Eastern Region is bestowed with seven Central Universities, (Assam University, Silchar; Tezpur University, Tezpur; NEHU, Shillong; Nagaland University, Kohima; Mizoram University, Aizawl; and Manipur University, Imphal and Rajiv Gandhi University, Arunachal Pradesh), three State Universities (Gauhati University, Dibrugarh University, and Tripura University), two Agricultural Universities (Agricultural University, Jorhat and Central Agricultural University, Imphal, ), seven Medical Colleges, three Engineering Colleges, one each Medical Research Institute, ICAR Laboratories, Advanced Studies in Science & Technologies, Centre of Plasma Physics, Agricultural University, Forest Research Institute and NERIST and 247 General Education Colleges. Besides these institutions few institutions of national importance like IIT, Guwahati, Sikkim Manipal Institution of Medical Science, North Eastern Regional Institute of Technology, Ita Nagar, National Institute of Technology, Silchar & Agartalla and North Eastern Regional Institute of Medical Sciences, Shillong have been established for the faster growth and the development of the backward and remote area society (Sinha and Bhattacharjee, 2006).

These universities and institutions of national importance located in this region have been catering the needs of the people of North Eastern Region and contributing in the human resource development of the region. According to the latest UGC Report there are 1230 numbers of colleges scattered throughout the NER having 120000 students and 15000 teachers. Teachers of universities have been engaged in research and development activities and have been producing qualified manpower for sustaining the economy of NER in particular and India in general.

Barak Valley is located in southern part of Assam which is geographically very remote and far from rest of India. It comprises of four District of South Assam viz. Silchar, Hailakandi, Karimgunj and N.C. Hills. It is very remote area although it is well connected by air; rail and road but surface communication takes lot of time, which results in low socio-economic development of the region. Assam University (A Central University) has been established by the Act of Parliament XIII of 1989 for the up-liftment of the backward society in terms of Higher Education, Socio-economic development. Then the long awaited university came into existence on 21<sup>st</sup> January 1994. At present Assam university has 29 academic departments, 3 study centres relating to Science & Technology, Social Sciences, Humanities and Language. Regional Engineering College (Now National Institute of Technology) and Medical College have been established two decades back for the development of Barak Valley. Assam University is an affiliating Central University having 16 affiliated & 21 permitted colleges and 5 affiliated & 6 permitted professional colleges. From the establishment of a Assam University (A Central University), the socio-economic development of this region will be faster now.

### **2.1 College Library**

College performs an important function in the educational process. College education provides a totally different environment for boys and girls whom ho for higher studies. Usually the classes comprise a large number of students and unlike school education, the college students get less individual attention from the teachers. The students therefore have to depend much more on the self-learning. Therefore the college library is the ultimate place for the students to supplement their class room teaching (IGNOU, 2000)

In general, college is regarded as an institution of higher learning, which provide courses after school leading to Bachelor's degree. Some of the prominent colleges also offer courses leading to Post- Graduate degree and Research work leading to Ph. D. Degree (Jefferson and Smith-Bennett, 1978).

## **2.2 Objective and Function of College Library**

The main objective of college library is to become instrument of instruction. In order to determine, how far it has succeeded in achieving the objective, one should determine the extent to which the user uses the library resource for their assignment as an integral part of the curriculum. In other words we can say that the teaching in the classroom must depend more on library than the textbooks. Therefore library must become the integral part of teaching programme (Krishan Kumar, 1989).

A college library is expected to support the objectives of the college. Therefore the basic function of the college library is to provide study materials to its users in short possible time and serve the requirements of the students, teachers and researchers towards reading, study and research.

## **2.3 Impact of Information Communication Technology on Libraries**

The Exponential rise in generation of new information, especially Scientific and Technological information since World War II has gradually reduced the effectiveness of the traditional tools and retrieval aids used by librarians. We are now in the age of information technology revolution along with information explosion. Due to information explosion, automation of library service is imperative for efficiency and effective working of library and information center. The automation is defined as a technique of making, a process or a system operates automatically.

Though generally library automation may mean use of suitable machines to perform the activities of library mechanically without much manual or mental efforts by human beings, today library automation signifies "mechanization of library house keeping operations predominantly by computerization". The most commonly known house keeping operations are acquisition control, serials control, cataloguing and circulation control. In recent times, even the related topics such as information retrieval, semi-automation, automatic indexing and networking of automated systems are also treated as part of library automation. Although computers have a major role in library automation, telecommunication and reprographic technology have an equally important role because of the extent of support they offer.

Most of the Library and Information Centres (LICs) of India have started using computers and Information Communication Technologies in organising their collections, housekeeping operations, processing, retrieval and dissemination of information to the end users. The use and impact of ICTs is now visible in Indian library and information centres which may be due to the drastic reduction / escalation of the cost of hardware and software and their easy availability in the markets with service support from the suppliers or vendors.

---

The impact of IT is also evident on the activities of many LICs associated with universities and other institutions of the national importance. Thanks to University Grants Commission for establishing INFLIBNET which have been playing an important role since its inception for initiating the automation and networking activities of library and information centres of universities, colleges, R&D laboratories, and various institutions of higher learning. So far 142 universities have been covered under the INFLIBNET Programme which enables the university libraries to purchase computers, modem, printer, air-conditioner, software (Operating and application software) and get telephone connectivity etc. The recurring grant is also provided for meeting the expenses of data support work, salary of Information Scientist, telephone charges for accessing INFLIBNET Databases through Internet and maintenance charges for first five years from the date of installation of systems (Sinha and Bhattacharjee, 2003).

### 3.0 What is Library Automation?

The automation is defined as the technique; a process or a system operates automatically. According to the Encyclopaedia of Information and Library Science, "Automation is the technology concerned with a design and development of the process and systems that minimises the necessity of human intervention in their operation".

Library automation may be defined in simple sense as "a process of mechanisation of library operations which are of a routine and repetitive nature. This covers usually house keeping operations such as acquisition, serial control, cataloguing, circulation, references and administration work". We may also say that computerisation of all library operation is known as Library Automation.

### 3.1 Why do you Need Library Automation

Libraries are the lighthouses for information. The thirst of knowledge is increasing every day of various levels and on various subjects. There is a great demand to provide such information quickly on demand for which an efficient and accurate devices or tools are introduced, which is based on mechanized process. Today library automation is the need of the hour Use of information technology in libraries has become inevitable in an era of information explosion and the emerging of a wide range of new technologies in order to satisfy changing complex information needs of users. The factors necessitating automation of College libraries are the following:

- \* Capacity to handle any amount of data and information;
- \* Speedy processing of information and its retrieval;
- \* Flexibility in information search;
- \* Standardisation of library procedures ;
- \* Participation in network programming and resource sharing;

- \* Provide better bibliographic control at local, regional, national and international level;
- \* High rate and better quality in performance;
- \* Avoid/eliminates duplication of works;
- \* Facilitate interdisciplinary nature of research and information;
- \* Economic implications of latest information technology;
- \* Overcome geographical and other barriers to communication; and
- \* Improve the quality of existing services and to reduce routine and time consuming clerical works.

### **3.2 Areas of Library Automation**

Following are the areas of Library Automation: Acquisition; Cataloguing and Indexing; Circulation ; Serial Control; Library Administration and Management ;On Line Public Access Catalogue ; CD-ROM Databases Searches; Resource sharing through Library; Network/INTERNET ; Desktop Publishing (DTP) ; Office Automation; Information Retrieval

### **3.3 Selection of Softwares for Library Automation**

Following are some library application software used for database creation and library services CDS/ISIS (Computerized documentation system/Integrated set of information system) - Developed by UNESCO ; LIBSYS ; MAITRAYEE ; SANJAY ; LIBRARIANS ; TULIPS ; WINISIS - Window Version of CDS/ISIS soft ware ; WILSYS ; NIRMALS ;SOUL - Soft ware for university library ; Library Suit ; TECHLIB Plus and many more. Selection of library software should be done as per the requirement and cost of the software. Before purchase and installation of software , the library professionals should do comparative analysis of various functioning of software and then come to concrete decision for long term benefit of the college library.

### **3.4 Background of Library Automation in Southern Assam**

Resource sharing library networks have been functioning effectively in developed countries since 1930s. In Assam, computerization and networking activities started during the Assessment and Accreditation of the colleges by NAAC, Bangalore. In Assam, especially in Barak Valley (Southern Assam) region among the college libraries N. C. College, Badarpur in the district of Karimganj started the library automation in 2002 with the help of CDS/ISIS library software. In the beginning, the major constrains of library automation were absence of planning, non-availability of vendor developed software at affordable prices, restrictions on the import of hardware, lack of trained manpower, lack of power supply, non-existence of standards, and absence of co-operation. At present, automation and networking have become unavoidable for any library to serve its clientele better and to obtain digitized information from a number of online sources.

---

In the information age, success lies in the innovative application of information technology and gaining access to digital resources. Adoption of IT has not only saved the time of scholars, it also widened the access base of information sources. In this context, the valuable support given by University Grants Commission (UGC) and Information and Library Network (INFLIBNET) Center is quite noteworthy. In the context of Southern Assam there are 15 Provincialised colleges. Each college has a well improvised library. Libraries form an important integral part of college education system by providing suitable information material useful for study, teaching, education and research purposes. In this paper 15 colleges of Southern Assam particularly the colleges of Cachar, Karimganj and Hailakandi district are taken into consideration for study.

#### **4.0 Role of INFLIBNET in Modernisation of Indian University/ /Institutional/ College Libraries**

INFLIBNET centre is an autonomous Inter-University Centre of UGC (University Grants Commission) under the ministry of Human Resource Development, Government of India. It is national institute in the area of library and information science for promoting library automation, resource sharing and cooperative development among the academic libraries and other R & D libraries in India. The centre is directed towards modernisation of libraries and information centres with aims at establishing a mechanism for information transfer and access to scholarship, learning and academic pursuits. The objective of the centre is to establish a national network of libraries and information centres including universities, institutions of higher learning, research and development, sharing and its utilization at national level. It is basically a cooperative endeavors in resource development, sharing and its utilization at national level. Over the years, the programme has progressed steadily and since May 1996 it is an independent autonomous Inter-University Centre under UGC. INFLIBNET is set out to be a major player in promoting scholarly communication among academicians and researchers in India.

Till date, 142 university libraries have been financed to establish the necessary infrastructure for computerisation of their libraries and link them through network. More than 600 staff members/ library and information professionals have been trained through a series of workshops, training programmes and on-site training across the country. Every year the national convention helps to make them aware of the new technologies and latest developments in the area.

Since its inception, considerable progress has been made in the area of library automation and networking of Indian Universities and institutions of higher learning. The important and significant achievements achieved by INFLIBNET are as under: Automation of University Libraries/ Institutions of Higher Learning; Development and Installation of SOUL in Various University Libraries; Manpower Development by Arranging Workshop and Training; Union Databases Developed at INFLIBNET; Setting up Standards in Database Creation; Provision of Information Services to the University

Community; Development of University Home Pages; Initiation and Implementation of UGC- NET Project ;Retrospective Conversion of Five Major Libraries ; Provision of Document Delivery Service for the University Community/Academics/Researchers (Sinha, Murthy and Manoj Kumar , 2006A) .

Though INFLIBNET had some teething problems, it was able to speed up the implementation of its activities during the last few years. Actually the involvement of INFLIBNET has created an IT culture in Indian university libraries. The Center has developed user-friendly software called Software for University Libraries (SOUL) for the comprehensive automation of participating libraries. Now SOUL is used by a number of libraries in Assam and reports reveal that it has been well accepted by the academic community. The development of SOUL will go a long way in standardizing library automation in the country. INFLIBNET has been providing regional level training programs to help librarians from colleges to automate their libraries using SOUL. It has developed bibliographic standards for data capturing. The INFLIBNET also conducted ten national conventions. These conventions known as CALIBER provide a platform for librarians and IT professionals to exchange their views and assess trends. The Center also provides various kinds of information services such as CD-ROM-based services, document delivery service, interlibrary loan, access to OCLC first search service, and so on. INFLIBNET has also initiated two major projects—Retrospective conversion of Collections of Five Major Libraries and Document Delivery Service from six major libraries. Creation of a digital library of theses and dissertations submitted to Indian Universities is another recent venture of the INFLIB-NET. It has also taken up a program of digitizing manuscripts available in Indian universities.

In X-Plan period, important autonomous colleges and prestigious colleges located in Assam have also been included under INFLIBNET Programme for receiving financial and technical support. INFLIBNET Centre has developed SOUL Software (College Version) and this software is being installed in many colleges of Assam in particular and North East India in general. The college librarians and other library professionals being given one month training at INFLIBNET Centre for implementing automation and networking of college libraries of Assam and North East India in particular and rest of India in general. There is a provision of on-site training after the installation of SOUL library application software. INFLIBNET is extending state-of -the -art ICT support and training for successful implementation of the programme.

Important college libraries have been included under UGC-INFONET Programme to access scholarly peer reviewed 4500+ e-journals and other on-line resources. During XI Plan period, there is proposal for extending financial and technical support to more colleges, which have not been included under this programme.

## 5.0 Status of ICT Application in College Libraries College Libraries of Southern Assam (Affiliated to Assam University, Silchar)

Out of 52 colleges affiliated under Assam University, Silchar, only in 13 colleges have taken initiative at the college management level for the computerisation of housekeeping operation of college libraries in view of the assessment of colleges and its libraries by the National Assessment and Accreditation Council (NAAC), Bangalore. For the NAAC accreditation and assessment modern library is one of the important parameter. The automation and networking of college libraries is under initial phase and basic information infrastructure is being developed at these colleges. The Table No. -1-3 would reveal the development of information infrastructure and computerisation of library housekeeping activities started in these colleges.

Table-1: The General Aspects of College Libraries

Name of College Library	Item						
	Year of Establishment	Book Collection	Current Journals Subscribed	Comment of Automation	Status of automation of housekeeping activities	Number of staff	Whether the post of College librarian is vacant?
Gurucharan College, Silchar	1935	60,956	35	2004	Progressing	08	No
Karimganj College, Karimganj	1946	50,423	30	2004	Progressing	05	No
S.S. College, Hailakandi	1950	45,256	19	2004	Progressing	04	No
Cachar College, Silchar	1960	43,128	22	2004	Progressing	03	No
Rabindra Sadan Girls' College, Karimganj	1962	22,345	15	2004	Progressing	03	No
Women's College, Silchar	1963	15,321	10	2004	Progressing	04	No
Ramkrishna Nagar College, Ramkrishnagar	1964	13,700	15	2004	Progressing	02	Yes
Janata College, Kabuganj	1964	11,209	10	2004	Progressing	03	No
Lala Rural College, Lala	1964	13,456	15	2004	Progressing	02	No
Nehru College, Pailapool	1965	15,455	10	2004	Progressing	03	No
Nabinchandra College, Badarpur	1969	9,875	08	2002	Completed	03	No
Radhamadhab College, Silchar	1971	8,987	15	2003	Progressing	03	No
M.C.D. College, Sonai	1972	6,567	05	2004	Progressing	02	Yes

## 5.1 Information Technology Infrastructure

The following table shows the detailed picture of the IT infrastructure of each college library of Southern Assam. All college libraries in Southern Assam are using computers for their services. All the libraries, without any exception, are using only personal computers for the entire range of automation activities (Table-2)



Name of College Library	Infrastructure						
	Computer Server	Com. Client	Printer	Scanner	Lan facility	Telephone Fax	Ext. Bat. UPS
Gurucharan College, Silchar	01	03	02	01	Yes	Yes	Yes
Karimganj College, Karimganj	01	01	01	Nil	No	No	No
S. S. College, Hailakandi	Nil	01	01	Nil	No	No	No
Cachar College, Silchar	Nil	01	01	Nil	No	No	No
Rabindra Sadan Girls' College, Karimganj	Nil	01	01	Nil	No	No	No
Women's College, Silchar	Nil	02	01	Nil	No	Yes	No
Ramkrishna Nagar College, Ramkrishnagar	Nil	01	01	Nil	No	No	No
Janata College, Kabuganj	Nil	01	01	Nil	No	No	No
Lala Rural College, Lala	Nil	01	01	Nil	No	No	No
Nehru College, Pailapool	Nil	02	01	Nil	No	Yes	No
Nabinchandra College, Badarpur	01	02	03	01	Yes	Yes	No
Radhamadhab College, Silchar	01	03	02	Nil	No	Yes	No
M. C. D. College, Sonai	Nil	01	01	Nil	No	No	No

## 5.2 Housekeeping Operations of College Libraries

The College libraries of Southern Assam have started the automation of housekeeping activities during the year 2004 just before the visit of NAAC Peer Team. All the libraries to some extent started creation of databases of books. All college libraries are using Library Automation Packages developed by external agencies or organizations.

## 5.3 Manpower Training

Human resources play a vital role for the successful management of any library. Training is also a very important aspect of human resource development. The basic knowledge of technology is essential for successful planning and implementation of library automation. There are a variety of ways to gain knowledge of using information technology in libraries. The highly rated steps are: Sending staff for training courses; Visits to automated libraries and consulted with other librarians; Attending meeting on library automation; Read library automation literature; and Hired a consultant on library automation.

## 5.4 Constraints of Library Automation in Southern Assam

Library automation is an expensive, complex and continuous process involving various constraints faced in its implementation. The computerization and networking of college libraries in Southern Assam is very slow. There are so many factors are responsible behind this. The following are some major factors liable for proper library automation (Sinha and Bhattacharjee, 2003).

- 
- \* Inadequate financial resources
  - \* Lack of proper guidelines and planning for automation of library activities
  - \* Lack of well accepted and less expensive Standard software package
  - \* Non-availability of IT trained personal
  - \* Inadequate management support .
  - \* Late implementation of library automation activities
  - \* Non-availability of consultancy services
  - \* Cumbersome purchase procedure for the acquisition of hardware and software
  - \* Non-availability and under utilization of Campus LAN
  - \* Erratic power supply, non-availability of heavy-duty UPS and Generators in many libraries
  - \* Resistance of library staff
  - \* Absence of university librarian in many libraries; and
  - \* Lack of adequate qualified professional staff.

#### **5.5 Future Plans and Proposals to Computerization and Networking College Libraries**

Libraries of Southern Assam have expressed their future plans according to their needs. Most of the libraries wants to purchase more computers for installing more terminals for users and wants to provide Computerized SDI services and full text search through INFLIBNET. Most of the libraries of Southern Assam wants to set up LAN and installed more computer for internet access. Nabinchandra College library wants to digitize all old question papers of Assam University Silchar and wants to provide access through OPAC terminal. Most of the libraries hopes to complete of library automation, bar coding and digitalization and wants to offer full OPAC, CAS, and SDI to users in near future.

The financial assistance for running the college is generally made available from the Govt. of Assam to all the Govt. Colleges in Assam. The Private Colleges are funded by the trust or some society and having partial Grant-in-Aid facility from the Govt. of Assam. The grants, which is made available by the state govt. in not received in time. Therefore due to financial crisis, the initiatives for developing information infrastructure and computerisation of library activities are not being taken by most of the colleges of South Assam affiliated under Assam University, Silchar in particular and entire Assam in general. However the Managing Committee of some colleges is looking for assistance from the corporate sector like Tea Estate Owner, ONGC, Hindustan Paper Corporation Ltd. local businessman, and public representatives like MLAs and MPs. The college libraries of this region are also exploring the possibility for taking financial assistance from the UGC and other funding agencies for automation and networking of College libraries associated with these colleges.

INFLIBNET should come forward to identify such colleges to extend helping hand for developing information infrastructure for the automation and networking of college libraries. This financial assistance may be made available directly or through Assam University, Silchar. Assam University Library should also come forward to take initiatives for automation and networking of all the college libraries affiliated to Assam University, Silchar. The Assam University Library should also arrange short term / long-term in-service training or manpower training and workshop for the implementation of computerisation of college libraries affiliated to Assam University.

### 6.0 Conclusion

Library automation activities are gaining momentum throughout the state. It is quite a good sign that SOUL is now available at an affordable cost as a comprehensive library automation package. However, librarians should be prepared to meet the challenges. They should acquire adequate knowledge about the hardware and software options available. All libraries should use standard software packages for automation and database creation to facilitate the exchange of bibliographic records between libraries. Databases may preferably be created in the MARC21 format because most libraries at the international level follow this. There is need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs.

Therefore, it is concluded that the Status of computerisation of library housekeeping operations and computer based library services of college libraries of Southern Assam is in nascent stage. Only few colleges, which are best colleges affiliated to Assam University, Silchar have started implementing the project of automation and networking of their college libraries. The Govt. of Assam and UGC should come forward to provide substantial financial assistance to the colleges located in the remote area of South Assam, which is popularly known as Barak Valley to start modernizing their college libraries and services to bring these colleges at par with the college libraries located in the other parts of India.

We do hope that in XI plan, UGC may take such initiative through the INFLIBNET Centre, Ahmedabad for the modernisation of all the college libraries located in the remote area of Assam in Particular and entire North East in general which would certainly uplift the academic standard of the Assam in particular and North Eastern Region Society in general.

### References

1. Anil Singh, 'Library automation and networking software in India,' Information Development, 19(2003): 51-55.
2. Murthy, T.A.V., Kembhavi, Ajit and Cholin, V.S. Access to Scholarly Journals and Databases: UGC-INFONET E-Journals Consortium. University News, 42 (34), 2004, 1-5, 8.

3. Rajesh Chandrakar, Premchand and Murthy T.A.V. , ``INFLIBNET Centre: bridging the digital divide in Indian academic libraries,`` In *Library and Information networking*, edited by H.K. Kaul and M.D. Baby (New Delhi:Delnet, 2002) pp. 45-54.
4. Rama Verma and Janak Raj, ``Practical aspects of library automation in the Indian context,`` In *Information Technology Application in Academic Libraries*, edited by A.L. Moorthy and P.B. Mangla, Ahmedabad: INFLIBNET Centre, 1997. pp. 10-14.
5. Ravichandra Rao, I.K. , ``Automation of academic libraries in India: status problems and future,`` In *Information Technology Application in Academic Libraries*, edited by A.L. Moorthy and P.B. Mangla, Ahmedabad: INFLIBNET Centre, 1997. pp. 1-4.
6. Sinha, Manoj Kumar .and Satpathy, K.C. 1998. *Library and Information Networks in India: an appraisal*. KELPRO Bulletin, 1(2) : 63-72
7. Sinha, Manoj Kumar and Satpathy, K. C. *Resource Sharing and Library Networks in India*. *Herald of Library Science*, 43(3-4)July-Oct, 2004, 243-250.
8. Sinha, Manoj Kumar and Satpathy, K. C. *Library Automation and Networking for Managing Library and Information Services*. *Indian Jour.Inf. Lib.& Soc.*, 17 (4) July-Dec, 2004, 118-130.
9. University Grants Commission and INFLIBNET .2003. A Brochure on "UGC-INFOENT E-Journals Consortium: A Programme for Indian Universities" , October 6, 2003 . 1-4 p.

Web Sites Visited : [www.inflibnet.ac.in](http://www.inflibnet.ac.in)

## ABOUT AUTHORS

**Dr. Manoj Kumar Sinha** did Graduation, Post Graduation and Ph.D. Degree in Zoology, Library and Information science from T.M. Bhagalpur University, Bhagalpur. Besides this, he has acquired B. Ed. Degree from Annamalai University in 1995 and also did Post-Graduate Diploma in Higher Education from IGNOU, New Delhi in 2002. Presently he is working as Assistant Librarian in Assam University, Silchar since 1997. He has published about 62 research papers and articles both in the area of Zoology, Environmental Sciences, and Library and Information Sciences.

**Mr. Shankar Chakarabarty**, Senior Librarian did Graduation and Post-Graduation from Guwahati University, Guwahati. At present he is working as Senior College Librarian at N C College , Badapur, Hailakandi, Assam since 1995. At present he is pursuing M. Phil. Research work from Vinayaka Missions University, Salem (Tamil Nadu) under the supervision of Dr. Manoj Kumar sinha, Assam University, Silchar.

**Mr. Jayanta Bhattacharjee** , Information scientist , Assam University did Graduation and MCA from North Bengal University, Silliguri, (West Bengal) . He joined Assam University as Information Scientist in 1999. He has attended national and International seminars and published few papers in conference proceedings.