CHAPTER - 1

INTRODUCTION
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The modern world has been shaped by Technology. The primary task of technology is to lighten the burden of workman to stay alive and develop his potential. A computer, for instance, can do in seconds what it would take clerks or even mathematicians a very long time. Since independence, with the advent of large-scale development in engineering and industry under the five-year plans, there has been a growing need for advanced studies in engineering in order to convert vast natural resources of our country into goods and services.

At the end of the twentieth century, engineers are required to play a much broader role in the community and to take a much broader view of the practice of their profession by reconciling technological, economic, environmental, social and cultural imperatives in their assessments, decisions and actions. In carrying out their roles, there is a need for engineers to be able to communicate with a much wider group of people than in the past. They need to work well with people from different countries and a variety of cultures. They have adapt quickly and effectively to changing circumstances. They ought to be conversant interdisciplinary system approaches while maintaining their technologically focussed capabilities.

Throughout the western world, the renaissance (revival of art and literature in the 14th – 16th century) in engineering influenced engineering education profoundly. There is consensus that the
essential nature of engineering needs to change which in itself possess educational dilemmas. Several major reports discussing the changes in the environment for engineering and in engineering practice itself, have called for new approaches to the design and provision of engineering education. (1)

In recent years, there has been an exponential growth in the number of engineering colleges, particularly private self-financing institutions. Andhra Pradesh has given the highest importance to quickly produce the largest number of engineers, especially those in information and communication technologies. In 1995, A.P. had just 35 engineering colleges. Now there are 236 engineering colleges. By deliberate design they had been dispersed throughout the state. The idea is that, in course of time, they will all become centres of excellence and will be enthusing the people around into enterprise.

Andhra Pradesh will now be able to produce 65,000 (approximately) engineering graduates per year. This is larger than the total number of graduates from the wealthiest country, United States. (2)

1.1 ROLE OF LIBRARIES IN ENGINEERING EDUCATION:

The basic aim of library and information service is to provide right information to the right reader at the right time. For achieving this aim, the library has to collect and preserve all types of materials that contain information and make them available to the users. Reading materials such as books, journals, magazines and newspapers
are the major components of the library. The basic function of college library is to serve the needs and requirements of the lectures and students in reading, study and research. (3)

In engineering education the students should refer to variety of books, because no single book can cover all over the syllabus. So the student has to refer so many books to collect the information. No student can purchase all the books for a single subject. But the college management should purchase all the books for each and every subject for the students for reference. So the library should collect or purchase the books with different authors for all subjects taught in the college. It is very much useful to the students to visit the library and collect information from the books which are available in the library. Even the high cost of engineering books prohibits students to purchase the books for their studies.

In engineering education the paper presentations, seminars, group discussions play an important role. So the students should refer newspapers, magazines, journals and other documents. These are available in libraries only.

Submission of project report is compulsory task for each and every engineering student. For this purpose, the students want to refer to variety of books, journals, reading materials, old project reports and other related reference sources. The libraries can only collect, preserve and issue these sources to the students.
So, the libraries play a key role to educate the engineering graduates perfectly.

1.2 PROPOSED RESEARCH

Computerisation of the entire library house keeping operations known as Library Automation. Library automation basically depends on the computers with its advantages of speed, vast storage capacity, and accuracy to library work. Operational advantages of library automation offer flexibility, speed up processing, great accuracy, efficient, consistency and improved work control, reduce repetitive clerical work. Depending on the type of library, all or some of the functions may be computerised according to their priority. Circulation control is top priority for any engineering college library. (4)

New education policy gives more stress on Library automation. Due to increasing cost and complexity of library packages it is planned to design and develop a complete program for circulation in the Intell Engineering College Library using FoxPro software package. It is a burden or last to select a new library software for the libraries to march with these new technology and their study will help in provide a better service and its clientele and to over come from conventional service. (5)

1.3 STATEMENT OF THE RESEARCH TITLE:

Library Automation through FoxPro with Special Reference to Intell Engineering College, Anantapur
**Explanation of the concepts of the Title:**

a) **LIBRARY AUTOMATION:**

Computerisation of all the library house keeping operations is known as ‘Library Automation’

Ranganathan’s fundamental laws of Library Science stipulate that the documents of the library should be fully exploited by the maximum number of users. With the introduction of fast emerging information technologies in all areas of library, there is tremendous improvement on the services offered to a library user.

b) **FOXPRO:**

FoxPro is a dynamic, powerful language that can handled almost any database applications. FoxPro permits to modify and improve the circulation control more effectively. This software is a fairly flexible system for storing, organising, analyzing, and retrieving information on computers. It is far better and advanced when compared with other databases.

c) **INTELL ENGINEERING COLLEGE ANANTAPUR:**

This study refers particularly on Intell Engineering College, Anantapur. Anantapur is a large district. Anantapur is district headquarters. It is situated in Andhra Pradesh.

In Anantapur district there are five private Engineering Colleges. In these, Intell Engineering College is old college which is established in 1998. It is 6 kilometers from Anantapur town towards west. It is in Kalyandurg Road.
1.4. OBJECTIVES

The objectives of the present study are

i. To present an overview of the Intell Engineering College library.

ii. To study particularly the automation of Intell Engineering College Library.

iii. To study the details of circulation control.

iv. To assess the utility of FoxPro to other sections like periodical section, acquisition section, cataloging section.

v. To design an integrated software with broad application to all the functions of the Engineering College under Study.
1.5 LIMITATIONS

1. This study has been limited to the Intell Engineering College, Anantapur.

2. This study has been limited to Intell Engineering College Library.

1.6 SIGNIFICANCE OF THE STUDY:

i. This study provides the information about the library automation through FoxPro.

ii. This study brings an idea of Intell Engineering College history and development.

iii. This study provides the information of list of Engineering Colleges in Andhra Pradesh.

iv. This study provides the "program" which is used to circulate the books to Engineering Students and faculty.

v. This study is used for other Engineering colleges to automate the libraries.

1.7 CONSPECTUS (CHAPTERISATION)

This study is presented in Nine major chapters.

CHAPTER 1 deals with a brief history of Engineering Education in India and particularly in Andhra Pradesh, role of libraries in Engineering Education, concept, explanation of terms in research title, objectives, limitations, significance of the study.

CHAPTER 2 explains the development of engineering education history of Intell Engineering College, details of college library and course details.

CHAPTER 3 deals with the description of different software packages developed by different organisations.
CHAPTER 4 presents an overview of FOXPRO

CHAPTER 5 explains the comparison between three software packages CDS/ISIS, SOUL, and FOXPRO

CHAPTER 6 presents all the commands and functions of FOXPRO

CHAPTER 7 presents the complete FOXPRO programme which is used to run the library house-keeping operations.

CHAPTER 8 deals the areas of Automation in Intell Engineering College Library.

CHAPTER 9 contains suggestions and recommendations based on the study and provide directions for further research.

The thesis concludes with a list of bibliography references and appendix.

REFERENCES:


