

WEB PRESENCE OF THE ENGINEERING COLLEGE LIBRARIES IN KERALA: AN ANALYSIS OF CONTENT

Archana.S.N

Research Scholar,
Dept. of Computer Applications,
Cochin University of Science & Technology,
Kochi - 682022.

Dr. S.Humayoon Kabir

Reader,
Dept. of Library and Information Science,
University of Kerala,
Trivandrum - 695034.

ABSTRACT

Websites of academic institutions are the prime source of information about the institution. Libraries, being the main provider of information for the academics, need to be represented in the respective homepages with due importance. Keeping this in mind, this study is an attempt to understand and analyze the presence and presentation of libraries of Engineering Colleges (EC) in Kerala in their respective websites. On the basis of the reviewed literature and an observation of libraries of nationally important institutions imparting technical education in India, a set of criteria were developed for analyzing the websites/web pages. Based on this an extensive survey of the websites of ECs were done. The collected data was then analyzed using Microsoft Excel. The library websites were then ranked on the basis of this analysis. It was observed that majority of the websites of ECs in Kerala have least representation of their respective libraries. Another important observation is that even the highest scoring libraries satisfy only half of the criteria listed for analysis.

1. Introduction

The introduction of World Wide Web has revolutionized the communication scenario around the globe. Academic institutions are the users in the forefront of this technology. The websites of academic institutions have now emerged as the prime source of information regarding the institutions. Since library is an inseparable component of an academic institution, the websites of academic institutions provide due importance to the library content/information in their homepage. Also the library websites/web pages provide access to a lot of electronic content. Since this is the situation world wide, the present study is an attempt to analyse how the engineering

colleges in Kerala present their library content in their website.

2. Background Information

The emergence of colleges in the private & self-financing sectors has changed the face and pace of technical education in Kerala. According to Kerala government sources there are 76 colleges imparting engineering education in the state [5]. Among these 9 colleges are run directly by the government. 3 colleges come under aided sector and the rest of the colleges are self-financing in nature run by universities, semi-governmental organizations and private managements. All the colleges listed in the above source are

affiliated to the six universities in Kerala except one (which is affiliated to Amrita Viswa Vidyapeetam). BTech and MTech courses on Mechanical Engineering, Computer Engineering, Electronics, Electrical, IT, Civil, Chemical, Polymer, Architecture, Instrumentation, etc are being imparted by these colleges. Two colleges run by the Kerala Agricultural University (College of Dairy Science, Mannuthy & KCAET, Tavannur) are different and unique in nature, since they impart BTech courses on Agricultural Engineering and Dairy Science. 10 colleges out of the above 76 colleges possess ISO certification.

Since the teaching-learning process has undergone a paradigm shift from class-room centered learning to library-centered learning, the libraries attached to these institutions are also supposed to keep certain standards in its operations and services. Advances in technologies and the changes in the education system have brought in a situation where no library can proceed further without providing electronic contents and service to its clientele. Also there is a great demand for electronic resources from the part of the users. Websites and portals are the best means for providing such services effectively and efficiently. Hence for providing better and standard services to the students, the academic libraries need to build up and maintain websites or portals that are accessible on a 24 x 7 basis.

In this context, this study is an investigation to find out how the Engineering Colleges (EC) in Kerala present their libraries in their websites and what importance do these colleges give to the library content in their respective websites.

3. Objectives

- 1) To ascertain how and to what extent the information regarding libraries are presented in the websites of the engineering colleges in Kerala
- 2) To analyse the contents of the library websites/webpages in accordance with the criteria developed for this purpose
- 3) To identify and rank the items most commonly seen in the websites/webpage of EC libraries.
- 4) To rank the colleges on the basis of the above analysis

4. Review of Literature

Dewey, B.I. (4) examined the web-based services of the thirteen member libraries of the Committee on Institutional Cooperation (CIC). Importance was given to the "findability" of service links on the sites.

An empirical survey to evaluate 12 major Danish academic library websites was conducted by Clausen H (2). The finding is that the web sites of the Danish academic libraries in question are above average compared with web sites in general. But as compared to the quality of the respective libraries, the websites are below the expectation level. Further the study suggests the need for regular updation of the websites on the basis of comparative evaluations Bao, surveyed 143 home pages of academic institutions and their libraries. He suggested that librarians should advocate for a library home page link on their parent institution's home page and provide access to online databases and free internet resources through the library's home page. He also stated that "The location of a library home page link on its parent institution's home page will determine the visibility of a library and will affect the effective use of the library's online, web-based resources"[1].

Lee & Teh conducted a study to evaluate the content and design of academic library websites in Malaysia. Twelve library websites of higher education institutions in the private

and public sector were evaluated qualitatively and quantitatively and found that these websites mainly provide general information about the libraries and its services. Further the author found that there is a lack of information organization in the websites and the websites are not up to the expectations of its clientele[7].

Websites of science & engineering libraries numbering to 45 in the USA and Canada were analysed including their design characteristics and hypertext links. The author Osorio found that these home pages have many of the elements found in other academic home pages and also have the problems and limitations typically found in such pages. The study identified the predominant design features and content elements and identified a model page from the selected sample [8].

Considerable guidance on creating and evaluating library web sites was put forward by Stropshire. The study identifies the salient issues in web site direction for web site management and reviews their practical application through examination of four case studies [10].

Jasek enumerated a set of simple-to-implement guidelines to help librarians design usable library websites. These were based on a survey of literature on library website design and usability testing, results of usability reviews conducted by Elsevier for library customers, and established best practices in website usability [6].

Detlor & Lewis (2006) evaluated the Association of Research Libraries (ARL) member websites and suggested that information seeking must be central focus of library website interface design. He further recommended that the library websites must support information use and not mere information access. The need for robust academic library websites with user centered

services to address the competitive threat is also emphasized in the paper [3].

Qutab & Mahmood analysed the web sites of 52 academic, special, public and national libraries in Pakistan based on a 77-item checklist. It was found that no library web site contained all items on the checklist. General features like access, speed, navigation, help facilities etc. were found, but the placement of library functions like OPAC, circulation, reference, and other interactive services were not highly observed. Further he suggested the importance of user-centered studies to develop more interactive websites and added that the web sites should focus attention to fulfil information seeking needs of users [9].

5. Methodology

First of all an extensive survey and analysis of the websites of engineering colleges in Kerala was conducted during the period from 20th March 2010 to 10th April 2010. The lists of the ECs were identified from the Kerala Government source http://www.kerala.gov.in/dept_technicaleducation/engg.htm. A google search with the name of the college was done to identify and access the websites of the respective colleges. On the basis of the reviewed literature and an observation of libraries of nationally important institutions imparting technical education, 41 criteria under the 6 headings were enumerated to analyse the content of the websites/ webpage. After the complete analysis 11 items were eliminated from the list of criteria due to their non-findability in the websites/webpage and the number of criteria was reduced to 30 under 5 headings. Usual criteria for website analysis like design features, credibility, etc are excluded in this study and much attention is given to the contents and links on the pages. The following criteria (Table 1) was enumerated for the analysis.

Table 1
Criteria for analysis of Websites of Colleges

I	Availability of Library website/webpage	1	Library has website
		2	A page dedicated
		3	A space in another page
II	Accessibility	4	Direct Link on parent
		5	link under "facilities/resources/on campus infrastructure, etc" with the title "library"
		6	With the link "facilities/resources/on campus/infrastructure", etc with out the title "library"
III	General Information	7	Introduction
		8	Collection
		9	Services
		10	Opening hours
		11	Circulation information
		12	Staff information
		13	Membership
		14	Rules
		15	Building & layout
		16	Different sections
		17	Technical Organization
		18	Automation
		19	E-mail/contact address of Librarian
		20	Department Libraries
IV	links to online Library resources	21	List of Journals subscribed
		22	Annual statistics
		23	OPAC
		24	E-journal links
		25	E-book links
		26	E-Question papers
V	Value added services	27	Digital library
		28	E-databases links
		29	Feedback form
		30	Links to other resources on net

Analysis of the collected data was done using Microsoft Excel.

6. Scope & Limitations

All the colleges listed under the source cited above have been covered in this study. It

is understood that there are more number of colleges imparting engineering education in the state. To maintain the authenticity of the work

they have been avoided. Only the colleges affiliated to the universities in Kerala only are considered for analysis. National Institute of Technology, Departments of Universities offering BTech & MTech courses etc are also exempted from this study.

The web content analysis is usually carried in out in two aspects- Design aspects (Graphics, appearance credibility, web aid tools etc) and content aspects. In this study only the content aspects are analysed. This is a quantitative analysis and there is scope for further research in analyzing the websites qualitatively.

7. Analysis & Interpretations

Out of the 76 colleges, only the websites of 62 college libraries are covered in this study. The reasons for exempting the others are unavailability of a website for the college (4 colleges), unavailability of library information in the respective college websites (6 colleges), virus/malicious software threat associated with the college website as reported by google (1 college). Besides Amrita Institute of Technology & Science, Vallikavu listed in the above source currently affiliated to Amrita Vishwa Vidyapeetam, Coimbatore is exempted in this study. Two colleges affiliated and run by the Kerala Agricultural University are also exempted since the nature of the colleges and the course imparted by them are different from others. Altogether 14 colleges are excluded in the survey.

The final analysis was done with 25 criteria under 5 headings and the findings are discussed below.

7.1. Availability of library website

Under this heading 3 criteria were listed. It was found that 9 college libraries possess a website. 29 college libraries has a dedicated page for library information in their parent institution's website and for 24 colleges the information regarding their libraries are presented as a paragraph or two in a general

page entitled facilities/resources/on campus/ infrastructure, etc. The percentage distribution concerning the availability of library website analysis is shown in fig.1

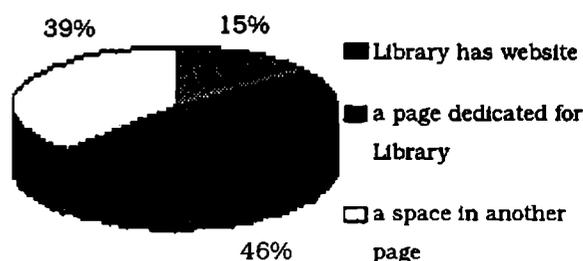


Figure 1 Availability of library websites (n=62)

7.2. Accessibility of library websites

It is very important in a study dealing with website analysis to find out how speedily and easily one could access a particular page from the home page. Many of the previous studies have stressed the need for a direct link for the library in the parent institution's home page. Five criteria were listed initially in this group. With '0' hits two of them, 'Dead Links' and 'Under Construction' were avoided. It was found that the home page of 15 colleges provided a direct link to its library's home page. The criteria under this group and their frequencies are listed in the table 2.

Table 2
Accessibility of websites

Sl. No.	Criteria	Frequency	%
1	Direct Link on parent's home page	15	24
2	link under "facilities/resources/on campus/ infrastructure, etc" with the title "library"	26	42
3	With the link "facilities/resources/ on campus / infrastructure", etc with out the title "library"	21	34

(n=62)

It was observed that the 'library' link could be accessed from the home pages of almost all the colleges except one where the information regarding library was provided in the page entitled "Laboratories" under the link "Campus Life".

7.3. General Information

Sixteen criteria were finalized in this section for analysis. The listed criteria and the corresponding hits are represented in the following table. It was observed that no library website contained all the items. 58 (94%) colleges provided a general introduction in their library webpage. Annual statistics of the library is provided by only one site. The frequency of occurrence of the criteria and their ranking accordingly is given in table 3.

Table 3
General Information about the library

Rank	Criteria	Frequency	%
1	Introduction	58	94
2	Collection	49	79
3	Opening hours	31	50
4	Services	13	21
5	Library Automation	12	19
6	Information on different sections	11	18
7	Staff information	10	16
8	Circulation information	8	13
8	Information on library rules	8	13
8	Department Libraries	8	13
9	Technical Organization	7	11
9	List of journals subscribed	7	11
10	Building & layout	6	10
10	e-mail/contact address of Librarian	6	10
11	Membership information	4	6
12	Annual statistics	1	2

(n=62)

Some websites provide only a general introduction about the library and no other criteria listed above. Regarding 'Automation' more than half of the colleges mentioned about 'Automated library' in their websites. But a score is given only when the name or source of the software is mentioned in the respective pages. Apart from the items listed above there were mentions about e-journals and databases subscribed by the libraries.

7.4. Availability of Links to Online Library Resources

Electronic resources are an inseparable and unavoidable content in present day academic libraries especially science & technology libraries and hence the links to such information provided by the library webpages are of utmost use to the library clientele. Here an investigation is made to find out how much importance does the engineering college libraries in Kerala give for the access of electronic resources through their home pages. The criteria enumerated for this group and their respective frequencies are presented in the table 4.

Table 4
Provision of links to Online Library Resources

Rank	Criteria	Frequency	%
1	E-databases links	8	13
2	Digital library links	7	11
3	Links to e-journal links	6	10
4	Link to e-Question papers	4	6
5	Link to OPAC	3	5
6	Links to e-books	2	3

Provision of (n=62)

8 (13%) of the library web pages provided a link to electronic databases. The commonly subscribed databases are IEEE electronic library and databases subscribed through INDEST-AICTE & DELNET-AICTE consortia. In many of the sites there is mention of digital library but a link to the same was provided only by 7 (11%) web sites. Among these, a direct link to their digital library is provided by the home page of 2 colleges. A number of colleges have a mentioning of OPAC in their web pages but a link to the OPAC in their home page was provided only by 3 (5%). But the investigators couldn't access any of these 3 OPACs since it asked for a password or reported an error (403-Forbidden). It is understood that many colleges provided access to OPAC through the campus LAN.

7.5. Value Added Services

Six criteria were initially enumerated under this group but 4 of them were eliminated with a 'zero' hit in the web pages and the remaining 2 items are 'Links to resources on the web' and 'Library Feedback Form'. A lot of free and valuable resources are available on the internet which is of great use to the engineering students and faculties. Librarians as information providers should take up the responsibility to channel these information to their users. Arranging and providing access to such resources in their respective home pages will be highly appreciated. An analysis of the above shows that only 2 (3%) library web pages provided an access to other resources on the web. In certain cases the college home pages provided access. The other criterion in this group is a 'Feedback form', which is an effective online tool to assess and self evaluate the library's performance. Only 1 college provided such a facility. A structured questionnaire for collecting data regarding user satisfaction with the performance of the library is given in the library home page.

New Additions list, News Alerts, RSS feeds, Library events are the criteria that are

eliminated from this group due to their absence in the surveyed web sites.

7.6. Other Observations

Five more criteria were listed under the heading *Online Services* and they were Ask a librarian, Online renewal, Online reservation, Fine Calculation & Book recommendation. It was really disappointing that not even a single library provided such a service through its home page and hence these criteria were excluded in the study. Another important observation is that many libraries use the term 'digital library' to represent their digital collections in the form of CD-ROMs & links to electronic databases. One of the colleges (Mohandas College of Engineering & Technology) provided a link to the library portal in its home page but all the features could not be analysed since it didn't provide external access.

8. Ranking of websites

On the basis of the above analysis an attempt is made here to rank the websites. For this certain criteria with some weightage is given as shown in table 5.

Table 5
Criteria of ranking of websites with weightage

Sl. No.	Criteria	Weight-age
1	Library has website	3
2	A page dedicated	2
3	A space in another page	1
4	Direct Link on parent	3
5	Link with "facilities/ resources/ on campus/ infrastructure, etc" with the title "library"	2
6	Link with "facilities/ resources/ on campus / infrastructure", etc with out the title "library"	1

All other criteria are given a weightage of "1" and the points obtained by each college are calculated to rank them accordingly. The highest score (19) is obtained by Vidya

Academy of Science & Technology, Thrissur and the medium score is calculated to be 8. Table 6 presents the ranks, names, URLs and scores obtained in detail.

Table 6
Ranked list of the library websites and their URLs

<i>Rank</i>	<i>Name</i>	<i>URL</i>	<i>Score</i>
1	Vidya Academy of Science & Technology, Thrissur	http://www.vidyaacademy.ac.in/?q=library	19
2	Saintgits College of Engineering, Kottayam	http://saintgits.org/main/stc/Library/AboutLibrary.asp	16
2	Viswa Jyoti College of Engineering & Technology, Vazhakkulam	http://www.vjcet.org/main/Library.asp	16
2	Mohandas College of Engineering & Technology, Nedumangad	http://www.mcetonline.com/MCETlib/Pages/MCET%20Library.index.htm	16
5	FISAT, Angamaly	http://www.flsat.ac.in/php/showData.php?linkid=154&headid=9&headtype=Y	15
5	Model Engineering College, Trikkakara	http://www.mec.ac.in/resources/library/index.html	15
7	Mar Athanasius College of Engineering, Kothamangalam	http://www.mace.ac.in/php/showContent.php?linkid=35&parent_id=33&menu=33&pg=	14
7	LBS College of Engineering, Kasaragod	http://www.lbsce.org/library.htm	14
7	Vimal Jyothi Engineering College, Kannur	http://www.vjec.ac.in/centrallibrary.htm	14
10	TKM Institute of Technology, Kollam	http://www.tkmit.ac.in/main/Library&KnowledgeCentre.asp	13
11	St. Joseph's college of Engineering & Technology, Pala	http://www.sjcetpala.ac.in/main/B-Tech/CollegeLibrary.asp	12
12	Kerala University College of Engineering, Karlavattom	http://www.keralauniversity.edu/uce/	11

12	Lourdes Matha College of Science & Technology, Kuttichal	http://www.lmcst.co.in/page/central-library#files	11
14	College of Engineering, Chenganur	http://www.ceconline.edu/index.php?link=library&data=about	10
14	College of Engineering, Poonjar	http://www.cep.ac.in/html/library.html	10
14	MES college of Engineering, Kuttippuram	http://www.mesce.ac.in/facilities/facilities.php?option=library	10
14	AWH Engineering College, Calicut	http://www.awhengg.org/library.htm	10
18	Rajiv Gandhi Institute of Technology, Kottaym	http://www.rit.ac.in/	9
18	Amal Jyothi College of Engineering, Kanjirappally	http://www.amaljyothi.ac.in/main/Library.asp	9
18	Adi Shankara Institute of Engineering & Technology, Kalady	http://www.adishankara.net/library.htm	9
21	Ilahia College Of Engineering & Technology, Muvattupuzha	http://ilahia.org/infoteam/icet/Library.aspx	8
21	Govt. college of Engineering, Kannur	http://gcek.ac.in/index.php?content=11	8
21	Govt. Engineering College, Wayanad	http://www.gecwyd.ac.in/sindex.php?option=com_content&view=article&id=54&Itemid=2	8
21	Nehru College of Engineering & Research Centre, Pampady	http://ncerc.in/LibraryFacility.aspx	8
21	Sahrdaya College of Engineering & Technology, Kodakara	http://www.sahrdaya.ac.in/Library.htm	8
26	KMEA Engineering College, Edathala	http://www.kmeacollege.org/php/viewContent.php?categoryId=11&Type=	7
26	Govt. Engineering College, Sreekrishnapuram	http://gecskp.ac.in/content/category/13/45/202/	7
26	College of Engineering, Kidangoor	http://ce-kgr.org/facilitiesn.html	7
26	Baselios Mathews II College of Engineering, Sasthamkotta	http://www.bmce.ac.in/Resources/Libraryandbooks.aspx	7

26	Jyothi Engineering College, Thrissur	http://www.jeccthrissur.org/programmes.htm	7
26	Travancore Engineering College, Oyoor	http://www.tec-engg.com/Library.aspx	7
26	IES College of Engineering, Thrissur	http://www.iesce.info/root/infrastructure/library.asp	7
26	Calicut University Institute of Engineering & Technology, Tenhippalam	http://www.cuiet.info/index.php?option=com_content&view=article&id=53&Itemid=68	7
34	Musaliar College of Engineering & Technology, Pathanamthitta	http://www.musaliarcollege.com/public/page.php?param=library	6
34	Mangalam College of Engineering, Ettumanoor	http://www.mangalam.net/html/m0200frm.htm	6
34	College of Engineering, Trivandrum	http://www.cet.ac.in/pages/Facilities.php	6
34	NSS College of Engineering, Palakkad	http://www.nssce.ac.in/facilities.asp#4	6
34	LBS Institute of Technology for Women, Trivandrum	http://lbsitw.ac.in/templates/library.jsp	6
34	Sree Chitra Thirunal College of Engineering, Pappanamcode	http://sctce.ac.in/templates/facilities.jsp	6
34	College of Engineering, Thalasserry	http://www.cethalassery.ac.in/Library.html	6
34	Mar Baselios College of Engineering & Technology, Nalanchira	http://mbcet.org/index.php?option=com_content&task=view&id=22&Itemid=66	6
34	Marian Engineering College, Kazhakkuttam	http://www.marianengineeringcollege.com/library.html	6
34	SHM Engineering College, Kadakkal	http://www.shmec.org/facilities.htm	6
34	Toch Institute of Science & Technology, Arakkunnam	http://www.tistcochin.edu.in/php/showContent.php?linkid=94	6
45	Mar Baselios College of Engineering & Technology, Peermade	http://www.mbcpeermade.com/content/viewContent.aspx?linkid=14	5

45	SCMS School of Engineering & Technology, Karukutty	http://www.scmsgroup.org/sset/php/showContent.php?linkid=372	5
45	TKM College of Engineering, Kollam	http://www.tkmce.org.in/library.htm	5
45	College of Engineering, Trikkartipur	http://www.cetkr.ac.in/library.htm	5
45	College of Engineering, Perumon	http://www.perumonec.ac.in/Facilities.htm	5
45	Muslim Association College of Engineering, Venjaramoodu	http://www.macev.org/codes/facilities.htm	5
45	Sree Buddha College of Engineering, Pattoor	http://www.sbce.ac.in/facilities.htm	5
45	Al-Ameen Engineering College, Shoranur	http://www.alameencollege.com/facilities_library.htm	5
45	College of Engineering, Adoor	http://www.ceadoor.ihrd.ac.in/resources/library.html	5
45	College of Engineering, Munnar	http://www.cemunnar.ac.in/	5
55	Rajagiri School of Engineering & Technology, Kochi	http://www.rajagritech.ac.in/Campuslife/Labs.asp	4
55	Sree Narayana Gurukulam College of Engineering, Kolenchery	http://www.sngce.ac.in/infrastructure/index.htm	4
55	Govt. Engineering College, Calicut	http://www.geckkd.ac.in/client.php?main=32	4
55	College of Engineering, Kalliooppara	http://www.cek.ac.in/index.php/infrastructure	4
55	M.G. University College of Engineering, Thodupuzha	http://www.ucet.ac.in/index.php?option=com_content&view=article&id=17:library&catid=49&Itemid=6#comments	4
55	Younus College of Engineering, Kollam	http://www.ycet.ac.in/facilities.htm	4
61	Co-operative Institute of Technology, Vadakara	http://www.citv.ac.in/Infra.htm	3
61	MEA Engineering College, Malappuram	http://www.meaengg.in/facilities.htm	3

9. Conclusion

It is evident from the study and the medium scores obtained by the colleges that majority of the websites of engineering colleges in Kerala have least representation of their respective libraries. Negligence from the part of authorities in providing the links to electronic resources in their respective home pages is really regrettable. It is interesting to note that with a single page in the parent's website, some of the libraries provide more information and links than those with library websites. An important observation is that even the highest scoring libraries satisfy only half of the criteria listed for analysis. It is high time for the library professionals associated with these institutions to be serious about the role of library websites in providing marketing and quality services. Such studies should be conducted on other type of institutions to have a reasonable generalisation.

10. Recommendations

- ❖ Librarians should ensure that a direct link for the library is provided in the home page of the respective parent institutions.
- ❖ Librarians should convince the authorities about the importance of library website and actively participate in the development of it.
- ❖ Library websites should present & provide services and facilities that satisfies the user needs.
- ❖ Studies may be conducted to analyse & evaluate the performance of the websites and changes may be made accordingly.

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