# LIBRARY WEB PAGES OF POLYTECHNIC COLLEGE WEBSITES IN KERALA: A CONTENT ANALYSIS

#### BHAVYA SURENDRAN

Chaithanya Vihar Chendayad, Panoor Kannur 670692 Kerala State Email: bhavyachaithanya@gmail.com

#### ABSTRACT

The study is a content analysis of the library web pages of the polytechnic college websites in Kerala. Twenty polytechnic colleges were studied through a well structured check list. The web pages were thoroughly scanned and a rank list prepared. The main objectives are to know the domain structure, to assess information on documents, services, collections and to rank the web pages. The findings are lion's share have contact information, a quarter provided library rules, majority provided library staff details, majority has journals, digital collections, reference, circulation, journals, books, book bank facility etc. It is found that none of them has new arrival information. Half of them acquire e-journals, 20% e-books. Government Polytechnic College, Vandiperiyar ranked top followed by Government Polytechnic College, Neyyattinkara. Recommendations are given.

Keywords : Content Analysis, Web pages, Websites, College Websites, Library Visibility, Web Content, Library Webpage, Library Services, Academic library, Engineering libraries, Polytechnics, Polytechnic Colleges, Kerala.

### 1. Introduction

Polytechnic colleges are powerful in providing technical knowledge to the community. Polytechnic colleges offer three year diploma or vocational course mainly in engineering in a wide spectrum of subjects. Polytechnic colleges in Kerala state was established in 1946, when it was under the administrative control of Madras Government. Now it is under the control of Directorate of Technical Education, Kerala. There are 51 Government and 32 private polytechnic colleges in the state, under the directorate, offering different diploma engineering nonengineering course (www.en.wikipedia.org/ wiki/List\_of\_polytehnic\_colleges\_in\_kerala). Websites are essential for all educational institutions. It provides primary and secondary information about the organisation. There are websites for the polytechnic colleges in Kerala. Due to the importance of library in an academic institution, they should give information on library in the home page of the institutional website or through a link. Library webpage of a college is essential as it will easily attract the attention of its users. It will enhance the image of the library to showcase its collection, services, facilities and other information. Evaluation of web pages will reveal the drawbacks and further direct scope for improvement. Even though there are studies on various aspects of information on engineering colleges and their websites and other institutions, so far no study conducted on the library web pages of polytechnic colleges in the state, thus the need of this study.

## 2. Review of Literature

There are a number of studies on library websites in various types of institutions. Among this studies on library websites of higher educational institutions like universities outnumber those of colleges both general and professional. There are studies on various aspects of polytechnic college libraries, but hardly any studies on the library websites of polytechnic college libraries. In this review only selected important studies are included.

A most recent study seen in literature is by Wani (2021). This study is a content analysis of library websites of Indian Institute of Management (IIM) in India.

The study by Ibrahim et al. (2020) describes the content analysis of Nigerian library websites in Nigerian universities. The main purpose of the study by Saloi (2020) is to evaluate the contents of university library websites of Assam. Content analysis of library websites of certain colleges affiliated to University of Delhi has been done jointly by Rahman and Batcha (2020). This joint study by Vaughan and Warlick analysed the library websites in forty Virginia four year academic institutes. The paper by Jindal et al. (2020) surveys the central university libraries of Delhi and NCR to find out web enabled information facilitites through their websites and ranked them. The purpose of the paper by Zobundzija and Dragun (2020) to investigate the presence of academic libraries in the facebook of Josip Strossmayer University in Osjeck, Croatia. The paper by

Kumar and Yadav (2020) aims to evaluate the contents and services of top ten NIRF ranked university portals and score them in classes of excellent, good, average and poor. An effort was made to analyse the library websites of medical colleges in Kerala by Rekha and Chandrasekhara, but the title of the study does not reflect the contents of the paper as the title does not mention library website.

Gupta and Gupta (2019) evaluated the library websites of technical colleges of West Bengal through content analysis. A content analysis of engineering college library websites in Goa was done by Hugar (2019). One hundred and seventy two parameters in five point rating scale has been designed and ranked 19, IITs and 29 NIT library websites by Verma (2018).

A joint study by Divya and Vijayakumar (2015) discusses the content analysis of websites of medical colleges in Kerala. Chikkamanju (2015) did a study on the content analysis of engineering college library websites, another study in Mysore was reported by Sacitha and Parameshwarappa (2016). Some other studies are listed in the reference part.

## 3. Objectives of the Study

The main purpose of the study is to evaluate the contents of the website of polytechnic colleges in Kerala state. The specific objectives are:

- To know the domain structure of the websites of polytechnic colleges
- To assess the information on documents, sections, services, collections available in the websites.

• To rank the library web pages of the polytechnic colleges.

## 4. Methodology

Survey and analysis of polytechnic library webpages of polytechnic libraries in Kerala was done during January-March months 2021. A google search with the name of the college was done to identify and access the websites of the respective colleges. Unaided colleges were not included in this study. Out of 51 government and aided polytechnics 30 colleges were eliminated due to the lack of library websites and less content in their websites. The data were collected through a well-structured check list from the selected polytechnics under study. Only 20 randomly selected polytechnics in Kerala were considered for analysis. These are provided in Appendix-1 with the name of the polytechnic colleges, abbreviation used and URL address.

## 5. Analysis of Data

It is found that all the polytechnic colleges have their own webpages.

### 5.1. Domain Structure

It is seen that almost half (45%) of the polytechnic college library websites have .ac.in domain extension. A quarter each (25% each) of the websites are using .in and .org. A meagre 5% use .org.in.

Domain	No. of Colleges	Percentage
ac.in	9	45
.in	5	25
.org	5	25
.org.in	1	5
Total	20	100

Table 1Domain Structure of Polytechnic College Websites

## 5.2. Basic Information in Library Websites

Contact information is seen in all the websites. Majority of the library websites (75%) contained photos of the library which helps to know the facilities and arrangements of the library. Half of the library websites (50%) provided information about the staff of the library and some of them displayed contact number. Only a quarter of the polytechnic libraries (25%) gave information about library rules as well as library working hours in their library websites. Unfortunately only two libraries provided membership details. They are Polytechnic College, Adoor (GPTCADO) and Government Polytechnic College, Kasaragod (GPCKASA) provided the membership details.

#### Table 2

Website Content	About Library	Library Rules	Library Hours	Library Staff	Infrast- ructure	Timings	Member- ship	Photos
GPTCNTA	Y	Y	Y	Ν	Y	Y	Ν	Ν
GPTCVAN	Y	Y	Y	Ν	Y	Y	Ν	Y
GWPTCK	Y	Ν	Y	Y	Ν	Y	Ν	Y
GPCKASA	Y	Ν	Y	N	Ν	Y	Y	Y
GPTCTRIK	Y	Ν	Ν	Ν	Y	Ν	Ν	Y
GWPCTSR	Y	Ν	Ν	Y	Y	Ν	N	Y
GPTCADO	Y	Y	Ν	Y	Y	Ν	Y	Y
GPTCMDI	Y	Ν	Ν	Y	Ν	Y	N	Y
SNPTC	Y	Ν	Ν	Y	Y	Ν	N	Y
GPTCMAN	Y	Y	Y	Y	Ν	Y	N	Y
IPTGPTC	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν
GWPTCTM	Y	Ν	Ν	Y	Y	Ν	Ν	Y
WPTCKAL	Y	N	Ν	N	Ν	Ν	N	Y
GPCMUTT	Y	Ν	Ν	Ν	Y	Ν	Ν	Y
GPTCPERI	Y	Y	Ν	Y	Y	Ν	N	Y
GPTCPUN	Y	Ν	Ν	Y	Y	Y	N	Y
GPTCKOR	Y	Ν	Ν	N	Ν	Ν	N	Ν
CARMPTC	Y	Ν	N	Y	Ν	Ν	Ν	Y
GPTCKOTT	Y	Ν	Ν	Ν	Ν	Ν	Ν	Ν
GPTCKALM	Y	Ν	N	Ν	Ν	Ν	Ν	Ν
Total	20(100%)	5(25%)	5(25%)	10(50%)	10(50%)	7(35%)	2(18%)	15(75%)

#### Basic Information in Polytechnic College Library Websites

Y = Yes, N = No

### 5.3. Sections of the Library

The collection of the polytechnic college libraries consists of print as well as digital resources. Majority (70%) of the libraries are purchasing journals and have periodical section. Those libraries having digital collection are 60% of the total. It is learned that the rest of the libraries are in the process of digitising their collection. Information on reference section and circulation section are provided by 35% and 15% of the library webpages. Only 10% of them gave information about stack (Maintenance Section).

Name of the College	Digital Library	Circulation Section	Periodical Section	Reference Section	Stack Section
GPTCNTA	Y	Y	Y	Y	Ν
GPTCVAN	Y	N	Y	Y	Ν
GWPTCK	Y	N	Y	Ν	Ν
GPCKASA	Y	N	Y	Ν	Ν
GPTCTRIK	Y	N	Y	Y	Ν
GWPCTSR	Y	N	Y	Ν	Ν
GPTCADO	N	N	Y	Ν	Y
GPTCMDI	Y	N	Y	Y	Ν
SNPTC	Y	N	Y	Ν	Ν
GPTCMAN	N	Y	Ν	Ν	Ν
IPTGPTC	Y	N	Y	Ν	Ν
GWPTCTM	N	N	Ν	Y	Y
WPTCKAL	Y	N	Y	Y	Ν
GPCMUTT	N	Y	Ν	Y	Ν
GPTCPERI	Y	N	Y	Ν	Ν
GPTCPUN	N	N	Ν	Ν	Ν
GPTCKOR	N	N	Y	Ν	Ν
CARMPTC	Y	N	Ν	Ν	Ν
GPTCKOTT	N	N	Y	Ν	Ν
GPTCKALM	N	N	Ν	Ν	Ν
Total	12(60%)	3(15%)	14(70%)	7(35%)	2(10%)

Table 3

Sections of Library

Y = Yes, N = No

#### 5.4. Library Collections

Information on the journals (both online and printed) are given in 75% of the library webpages. These journals includes both general and subject journals. Those of books in 60% of the websites. Book bank facility is provided in 40% of the libraries. It is functioning under a separate fund solely for the benefit of SC/ST students. Newspaper reading facility is provided in 30% of the polytechnics. Only 15% of libraries them have collection of videos (CD/DVD). Only two polytechnic libraries have bound volumes collection. They are Government Polytechnic, Vandiperiyar (GPTCVAN) and Government Women's Polytechnic, Trivandrum (GWPTC TM). Surprisingly none of the webpages have new arrival information which helps clientele to know the recent arrivals in the library, without coming directly to the library.

#### Table 4

#### Library Collections

Library Collections	Books	Book Bank	Journals	News paper	New Arrivals	Back Volumes	CD/DVD
GPTCNTA	Y	Y	Y	Y	N	Ν	Ν
GPTCVAN	Y	Y	Y	Y	N	Y	Ν
GWPTCK	Y	Y	Y	Ν	N	N	Ν
GPCKASA	Y	Ν	Y	Ν	N	N	Ν
GPTCTRIK	Ν	Ν	Y	Ν	N	N	Y
GWPCTSR	Y	Ν	Y	Ν	N	N	Y
GPTCADO	Y	Y	Y	Y	N	N	Ν
GPTCMDI	Ν	Ν	Y	Ν	N	N	N
SNPTC	Ν	Ν	Y	Ν	N	N	Ν
GPTCMAN	Y	Y	N	Ν	N	N	N
IPTGPTC	Y	Ν	Y	Ν	N	Y	N
GWPTCTM	Y	Y	N	Y	N	N	Ν
WPTCKAL	Y	Y	Y	Ν	N	N	N
GPCMUTT	Y	Ν	N	Ν	N	N	Y
GPTCPERI	Y	Y	Y	Y	N	N	Ν
GPTCPUN	Ν	Ν	Y	Ν	N	N	Ν
GPTCKOR	Ν	Ν	Y	Y	N	N	Ν
CARMPTC	Ν	Ν	N	Ν	N	N	N
GPTCKOTT	Ν	Ν	Y	Ν	N	N	Ν
GPTCKALM	Ν	Ν	N	Ν	N	N	Ν
Total	12(60%)	8(40%)	15(75%)	6(30%)	0	2(10%)	3(15%)

Y = Yes, N = No

## 5.5. Electronic Resources

Half of the libraries (50%) are acquiring e-journals, whereas e-books, only 20% of the libraries. Only E.K. Nayanar Memorial Polytechnic College, Thrikkaripur (GPTCTRIK) subscribes to e-newspapers. Electronic data bases are available in Government Polytechnic, Vandiperiyar (GPTCVAN) and Government Women's Polytechnic, Kottakal (GWPTCK) only.

Name of the College	E-books	E-Journals	E-News papers	E-Data Base
GPTCNTA	Y	Y	Ν	N
GPTCVAN	N	Y	Ν	Y
GWPTCK	N	Y	Ν	Y
GPCKASA	N	Y	Ν	N
GPTCTRIK	Y	Y	Y	N
GWPCTSR	Y	Y	Ν	N
GPTCADO	N	N	Ν	N
GPTCMDI	N	Y	Ν	N
SNPTC	N	Y	Ν	N
GPTCMAN	N	N	Ν	N
IPTGPTC	N	N	Ν	N
GWPTCTM	N	N	Ν	N
WPTCKAL	Ν	Ν	Ν	N
GPCMUTT	Ν	Ν	Ν	N
GPTCPERI	Y	Y	Ν	N
GPTCPUN	N	N	Ν	N
GPTCKOR	N	Y	Ν	N
CARMPTC	N	N	Ν	N
GPTCKOTT	N	N	Ν	N
GPTCKALM	N	N	Ν	N
Total	4(20%)	10(50%)	1(5%)	2(10%)

Table 5Electronic Resources

 $\overline{Y} = Yes, N = No$ 

### 5.6. Library Services

Internet facility is provided only in 20% of the libraries and reprography facility in 50% of libraries. DELNET is available in two

libraries. They are Government Polytechnic, Kasaragod (GPCKASA) and Government Women's Polytechnic, Kottakkal (GWPTCK). Question papers are available in two libraries and OPAC and loan facility one library each.

Name of the College	OPAC	Internet Facility	Loan	Question Paper	DELNET	Repro- graphy
GPTCNTA	N	Ν	Ν	N	Ν	Ν
GPTCVAN	N	Y	Y	Y	Ν	Y
GWPTCK	N	Ν	Ν	N	Y	Y
GPCKASA	N	Ν	Ν	N	Y	Ν
GPTCTRIK	N	Ν	Ν	Y	N	Ν
GWPCTSR	N	Ν	Ν	N	Ν	Ν
GPTCADO	N	Ν	Ν	N	N	Ν
GPTCMDI	N	Ν	Ν	N	N	Ν
SNPTC	Y	Ν	Ν	N	N	Ν
GPTCMAN	N	Ν	Ν	N	N	Ν
IPTGPTC	N	Y	Ν	N	N	Y
GWPTCTM	N	Ν	Ν	N	N	Ν
WPTCKAL	N	Ν	Ν	N	N	Ν
GPCMUTT	N	Y	Ν	N	N	Ν
GPTCPERI	N	Ν	Ν	N	N	Ν
GPTCPUN	N	Ν	Ν	N	N	Ν
GPTCKOR	N	Y	Ν	N	N	Ν
CARMPTC	N	N	Ν	N	N	Ν
GPTCKOTT	N	N	Ν	N	N	Ν
GPTCKALM	N	N	Ν	N	N	Ν
Total	1(5%)	4(20%)	1(5%)	2(10%)	2(10%)	3(15%)

Table 6Library Services

Y = Yes, N = No

## 5.7. Ranking of Polytechnic College Websites

Ranking of Polytechnic College Library websites has been done by calculating the score starting from the basic information (table 2) to library services (table 6) and is given in table 7. The results showed that Government Polytechnic College, Vandiperiyar, Idukki (GPTCVAN) received the highest score (20). This is followed by Government Polytechnic College, Neyyattinkara, Trivandrum (GPTCNTA) (15 points). Next in the order is Government Women's Polytechnic, Kottakkal, Malappuram (GWPTCK) with a score of 14. A complete list of the polytechnics ranked and its score is given in table 7.

### Table 7

S1. No.	Colleges	Abbrevia- tions	Total points scored by each polytechnic	Rank
1	Government Polytechnic Vendiperiyar Idukki	GPTCVAN	20	1
2	Government Polytechnic College Neyyatinkara	GPTCNTA	15	2
3	Government Women's Polytechnic Kottakkal	GWPTCK	14	3
4	Government Collage Perinthalmanna	GPTCPERI	13	4
5	Government Polytechnic College Adoor,	GPTCADO	12	5
6	E K Nayanar Memorial Polytechnic College Thrikkaripur	GPTCTRIK	12	5
7	Government Polytechnic Kasargod	GPCKASA	11	6
8	Government Women's Polytechnic Thrissur G		11	6
9	Government Of College Meenangadi Wayanad C		09	7
10	Government Women's Polytechnic College Trivandrum	GWPTCTM	09	7
11	Government Polytechnic Collage Manjerry	GPTCMAN	09	7
12	Swami Nityananda Polytechnic Kanjangad	SNPTC	09	7
13	Institute of Printing Technology and Government Polytechnic College	IPTGPTC	08	8
14	Government Collage Muttam	GPCMUTT	08	8
15	Women's Polytechnic Kalamasserry Ernakulam	WPTCKAL	08	8
16	Government Polytechnic Punaloor	GPTCPUN	06	9
17	Government Polytechnic Koratty GPTC		06	9
18	Caremal Polytechnic Alapuzha	CARMPTC	04	10
19	Government Polytechnic College Kottayam	GPTCKOTT	03	11
20	Government Polytechnic Kalamasserry	GPTCKALM	01	12

### Ranking of Polytechnic College Websites

Calculations from table 2 onwards to table 7 (out of 30).

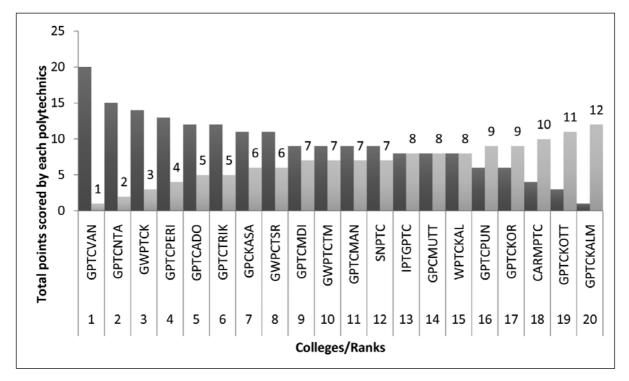


Fig.1. Ranking of Library Webpages of Polytechnic College Websites in Kerala

## 6. Findings

Major findings of the study are:

- There is no uniformity in the information content on the library web pages of Polytechnic colleges in the state.
- All the polytechnic colleges in the sample have library web pages.
- Majority of the library web pages contain photos of their library, but photos on different sections of the library lacking.
- Half of the library webpages of colleges provided library staff details
- A quarter of the library web pages provide library rules and only two libraries provided membership details.
- Majority of the libraries have journals and digital collection.

- Some of the libraries provided information on reference and circulation section.
- Information on journals and books, book bank facility, videos on the web pages.
- None of the web pages have new arrival information.
- Half of the libraries are acquiring e-journals and 20% of them e-books.
- Internet facility to users only in 20% libraries and reprography in 15%.
- Government Polytechnic, Vandiperiyar, Idukki ranked at the top and Government Polytechnic College, Neyyattinkara is in the next position.
- Of all the library web pages none of the web pages are considered as 'excellent'.

## 7. Recommendations

- a) Library websites should be constructed for all the polytechnic college libraries in the state rather than providing only web page.
- b) More detailed information about library should be provided in the college websites.
- c) The information given in the web pages should be regularly updated.

## 8. Conclusion

This paper gives information on the library web pages of polytechnic colleges in Kerala. Websites are one of the important tools to disseminate the activities of a college. Libraries are playing an important role in information services and their details are must in the website of their institution. This helps in students, faculty members and others residing in different places to get basic/ advanced information about the library information and facilities provided by them. In this study it is found that there are variations in information content in the library web pages. The webpages of the polytechnic colleges should be updated constantly for getting the latest information resources and services. Only few polytechnics have provided information of some items on libraries. The library web pages should be made more useful, dynamic, innovative and interactive as far as possible. Librarians in the polytechnic colleges has to see the library information in the websites get updated. There should be provision for instant messaging, RSS feeds, FAQs etc so that users have opportunity for direct communication with the system.

## References

- Archana, S N. and Humayoon Kabir, S. (2010). Web presence of the Engineering College Libraries in Kerala: An Analysis of Content. *Kelpro Bulletin*, 14, 1, 35-47
- Arshad, A. and Ameen, K. (2015). Usage patterns of Punjab University library website: A transactional log analysis study. *The Electronic Library*, 33, 1, 65-74.
- Chikkamanju (2015). Content Analysis of the Autonomous Engineering College Library Websites affiliated to Visveswaraya Technological University (VTU), Belgaum, Karnataka: A Study. International Journal of Academic Library Information Science, 3, 9, 258-268.
- Divya, L. R. and Vijayakumar, K. P.(2015). Content Analysis of the websites of Medical Colleges in Kerala, *Kelpro Bulletin*, 19, 1,68-77.
- Gupta, Ananya Das and Gupta, Meghamala (2019). Evaluation of library web presence of technical colleges of West Bengal through content analysis. International Journal of Next Generation Library and Technologies, 5, 1, Feb., 1-15.
- 6. Haridasan, S. and Uwesh, M. (2014). Content Analysis of Central University Library Websites in India. *Journal of Information Management*, 1, 2, 59-71.
- 7. Hugar, J.G. (2019). Content analysis of engineering college library websites in Goa. *Library Philosophy and Practice, (ejournal)*
- 8. Ibrahim, Umar et al. (2020). Comparative content analysis of selected Nigerian University library websites. *Journal of Information Management*, 7, 1, June, 22-31.

- **9. Jindal, Rajni et al.** (2020). A comparative study of web enabled information service through websites in central university libraries of Delhi and NCR. *Library Progress*, 40, 1, Jan., 73-86.
- 10. Kumar, Vinit and Yadav, Sheel Bhadra (2020). How efficient are university library portals of NIRF ranked Indian universities: An evaluative study. DESIDOC Journal of Library and InformationTechnology, 40, 1, 351-358.
- Madhusudhan, M. (2012). Content Evaluation of Indian Institutes of Technology Library Websites in India. World Digital Libraries, 1-20.
- Manoj Kumar, K.D.(2015). Content Analysis of Central Universities Library Websites of North Eastern States of India: A Survey. *Journal of Research in Librarianship*, 2, 5, 48-59.
- Prakash, B. (2016). Contents of Central University Library Websites in India: an analysis. *E-Library Sciences Research Journal*, 2, 1, 1-8.
- Rahman, Azizur. and Batcha, Sadik, M. (2020). Content Analysis of Library websites of select colleges of Delhi University: A study. DESIDOC Journal of Library and Information Technology, 40, 4, 247-252.
- Mani, M. et al. (2017).Content Analysis of Engineering College Library Websites Tirunelveli District, TamilNadu: A study. Journal of Advances in Library and Information Science, 6,132-138.
- Saloi, Ankita (2020). Web content evaluation of university libraries of Assam. Journal of Information Management, 7, 2, Dec., 70-77.
- 17. Sacitha, K S. and Paramashappa (2016). An Engineering college Library

websites of Mysore: A Content Analysis. *Research Journal of Library Science*, 4, 3, 15-10.

- Singh, M. P. and Gautam, V. K. (2016). Content analysis of websites of Central University Libraries in Delhi, India. Journal of Information Management, 3, 2, 1-14.
- **19. Verma, M. K. and Devi, K. K**. (2015). Content analysis of Central Universities library websites of North Eastern States of India. *Journal of Research in Librarianship, 2*, 5,48-59.
- 20. Vijayakumar, M. et al. (2009). Content analysis of Indian Institutes of Technology libraries web portals. DESIDOC Journal of Library and Information Technology, 29, 1, 57-63.
- 21. Sarjoon, Beegum, N.R, and Humayoon Kabir, S. (2016). Content Analysis of the websites of major research institutions in Thiruvananthapuram District. *Kelpro Bulletin*, 20, 2, 53-63
- 22. Vaughan, K.T.L. and Warlick, E. Stefania (2020). Accessibility and disability services in Virginia's four year academic libraries: A content analysis of library web pages. *Virginia libraries*, 64, 1, 1-7.
- 23. Wani, Gautam Amrut (2021). Content analysis of library websites of selected Indian Institute of Management (IIM) in India: A study. *International Journal of Research in Library Science*, 7, 2, April, 111-124.
- 24. Zobundzija, Vesna and Dragun, Elizabeta (2020). Libraries of the University of Osijek on facebook: Why Liking is important to us? Vjesnik Bibliotekera Hrvastske, 63, 1.

Sl. No.	Name of polytechnic colleges	Abbreviations	URL address
1	Government Polytechnic College, Neyyatinkara	GPTCNTA	www.gptcnta.ac.in
2	Government Polytechnic College, Vandiperiyar, Idukki	GPTCVAN	http:// www.gptcvandiperiyar.org
3	Government Women's Polytechnic College, Kottakkal	GWPTCK	http://www.gwptck.ac.in/
4	Government Polytechnic, Kasargod	GPCKASA	http://gpckasaragod.ac.in/
5	E K Nayanar Memorial Polytechnic College, Thrikkaripur	GPTCTRIK	http://gptctrikaripur.in/
6	Government Women's Polytechnic College, Thrissur	GWPCTSR	http://www.gwpctsr.ac.in/
7	Government Polytechnic College, Adoor	GPTCADO	https://gptcadoor.org
8	Government Polytechnic College, Meenangadi, Wayanad	GPTCMDI	http://gptcmdi.ac.in/
9	Swami Nityananda Polytechnic, Kanjangad	SNPTC	http://snpolytechnic.ac.in/
10	Government Polytechnic Collage, Manjeri	GPTCMAN	http://www.gptcmanjeri.in/
11	Institute of Printing Technology and Government Polytechnic College, Shoranur	IPTGPTC	https://iptgptc.ac.in/
12	Government Women's Polytechnic College, Trivandrum	GWPTCTM	www.gwptctvpm.org(NEW)
13	Government Women's Polytechnic College, Ernakulum	WPTCKAL	https:// wptckalamassery.ac.in/
14	Government Polytechnic College, Muttam	GPCMUTT	www.gpcmuttom.ac.in
15	Government Polytechnic College, Perinthalmanna	GPTCPERI	http// www.gptcperinthalmanna.in
16	Government Polytechnic College, Punaloor	GPTCPUN	www.gptcpunalur.org
17	Government Polytechnic College, Koratty	GPTCKOR	http://gptckoratty.org/
18	Carmel Polytechnic College, Alapuzha	CARMPTC	http://carmelpoly.in/index
19	Government Polytechnic College, Kottayam	GPTCKOTT	https:// gptckottayam.in/
20	Government Polytechnic College, Kalamasserry	GPTCKALM	https:// gptckalamassery.org.in/

# Appendix - 1 List of Polytechnic Colleges Studied