

## **IMPACT OF NPTEL IN KANDULA GROUP OF INSTITUTIONS KADAPA DISTRICT ANDHRA PRADESH : A CASE STUDY**

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### **Abstract**

Due to fast development of information and communication technology, student and faculty needs relevant and current information as on time, they quickly adapted into print form to electronic form in current scenario. More demand of digital information leads to remarkable position of increase in publication sector and usage of EIS in all discipline especially science and engineering. In view of more e-resources demanded, NPTEL is an Indian portal dedicated and provides technical e-content to solve this issue of one side increased e-resource demand and other side deficiency of qualified faculty. This paper studies the impact of NPTEL on student and faculty in Kandula Group of Institutions Kadapa District Andhra Pradesh. It focuses out the variations in perceptions and preferences of user using NPTEL. It is found that majority of respondents accessed NPTEL for their teaching and learning purpose. Most of the respondents opined that NPTEL is very useful for teaching and research purpose.

**Keywords : Electronics Information, NPTEL, Higher Education Colleges, E-content, Video courses.**

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## INTRODUCTION

Indian economy is growing at a fast pace presently. Sustaining this growth requires technically trained professionals in large number. It requires providing education and training to population in increasing number. The technological advancement can be of great help in this regard. Studies needs to evaluate Technology Enhanced learning, with particular reference to NPTEL - a portal dedicated to technical e-content(video/web) These programs

fulfilled the gap between the user and subject expert from various places from major Indian technical institution. One side short of subject expert in engineering and technical area

and other side user needs are increased toward the digital form of information. This NPTEL video/web course program is helped to the faculties and student in the field of engineering and technologies. This paper deals with the NPTEL program availability and impact of Kandula Group of Institutions Kadapa District Andhra Pradesh.

## LITERATURE REVIEW

According to Pillai s Deepti, Dr.Kevin Stephen (2013) The study shows how free access to quality enhanced & technology enabled web and video content in the Engineering & Science subjects has many takers in the form of students, faculty members & working professionals from urban & rural parts of India, as well as from 140 different nations . An Investigation of Students' Information-Seeking Behavior. The highlighted the importance of e-resources and usage level. Applications of e-Learning in engineering education: A case study explains that results are discussed in light of relevant research to suggest recommendations for improving e-learning implementations in engineering education.

## NPTEL (National Programme on Technology Enhanced Learning)

The National Programme on Technology Enhanced Learning (NPTEL), proposed for the first time in 1999 by Professor M. S. Ananth, Director, IIT Madras and funded by the Ministry of Human Resource Development, Government of India, has developed curriculum based course contents for more than 250 engineering courses in five disciplines at the undergraduate level. The programme has been executed jointly by all seven Indian Institutes of Technology (Bombay,

Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and the Indian Institute of Science, Bangalore. More than 500 faculty members from the above have participated in the programme to develop content. It is coordinated by the IIT Madras.

The disciplines covered are Civil Engineering, Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering, Mechanical Engineering and Core science, Management Studies and Language courses that all engineering students are required to take. The course contents are available freely on the Internet (URL: <http://nptel.ac.in>). The courses have been prepared in two formats, namely as web based lectures (slides, chapters or modules with animations), or as a sequence of thirty to fifty video recorded lectures of one hour duration each. They are modularized in such a way that a large part of each course covers basic learning materials for different University syllabi throughout the world on that topic. The contents of video lectures are available as video streams on demand through the generous offer of free web hosting by YouTube : <http://www.youtube.com/iit>). The video archive that has been created through this project is the single largest open video archive containing contents in engineering and technical courses at the undergraduate level anywhere in the world. Contributed by more than 230 faculty members from all partner Institutions in this project, it is also a unique exercise in which eight competing Indian academic institutions of international repute have worked together to deliver a common cause, namely, improve current engineering education in India and at the same time, provide for any student in the world to undertake a systematic and self-study of engineering concepts. Approximately 5,000 one hour video lectures have been recorded under this programme. More than 4,500 hours have been made available already through the above site, with the rest to be uploaded within the next few months. Many different styles and pedagogies have been accommodated using a few simple guidelines for faculty contributors to adopt in content creation through the video and the web. The web based contents are already registered with Google Analytics and the statistics provided by Google is being used to study the effectiveness of this programme.

## **PROFILE OF ENGINEERING COLLEGES IN KADAPA DISTRICT**

1. K.S.R.M. College of Engineering (Autonomous) :: KADAPA.

The college was established at 1980 with 05 UG courses and 04 PG courses. Research Center also established at 2016. Affiliated to JNTUA Ananthapuram, accredited by NBA, NACC and a recipient of ISO certification Add to this Institution has been Autonomous in the year of 2014. The present strength of student and staff about 3500. Central Library in an area of 1060.18 sq.m, the Library has 63542 Volume of Books with 9542 Titles. The Library subscribes 99 National and 100 International Journals. The Library Subscribed E –resources are available.

## **2. K.L.M. College of Engineering for Women: KADAPA.**

The college was established at 2008 with 04 UG courses and 02 PG courses. The present strength of students and staff about 1660. Central Library of the college has a collection of nearly 25339 Books, 2219 Titles. The Library subscribes 74 National and 43 International Journals, e-resources such as e-journal, e-books, NPTEL web and video e-learning courses(as mandatory by AICTE/UGC).

## **3. K.O.R.M. College of Engineering: KADAPA.**

The college is established at 2007 and institution approved by AICTE, affiliated to JNTUA Ananthapuram, The college offers 04 UG courses and 04 PG Courses with an annual intake of 1068 students. The overall students strength of the college is 1005. Collge Central Library of the college has a collection of nearly 17230 books, 2714 titles , National Journals 75 International Journals 26 e-resources such as e-journal, e-books, NPTEL web and video e-learning courses.

### **OBJECTIVES OF THE STUDY**

1. To examine the frequency of access NPTEL video and web content
2. To Find out the level of access point of NPTEL
3. To know the purpose of using NPTEL
4. To find out the problems for access NPTEL
5. To guide road map for maximum level of usage to end users.

### **METHODOLOGY**

The present study was conducted using questionnaire-based survey method; The questionnaire was pre-tested on users which included the two groups; the faculty and students. A total number

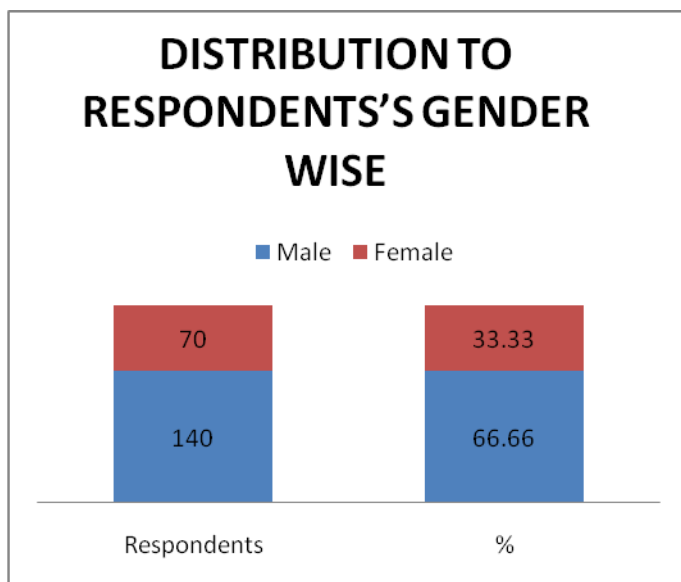
of 250 questionnaires (randomly) were administered among the users of Kandula Group of Institutions Kadapa. Under this study. Out of which 210 (84.00%) questionnaires were received back duly filled in. The data collected Google Docs.

## SCOPE AND LIMITATION

There are nearly 24 Engineering colleges in Kadapa District Affiliated to JNT University Ananthapuram. The present Research is based on a random sample of users (faculty members and students) from 03 Engineering colleges. The present study is confined only to the Kadapa District engineering college students and faculty members.

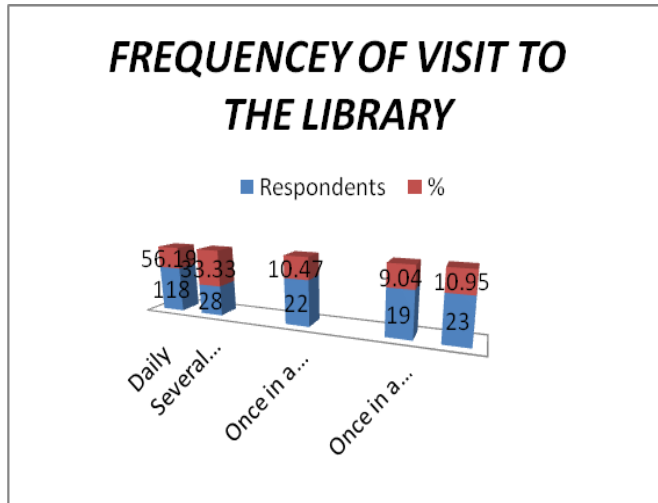
## DATA INTERPRETATION AND ANALYSIS

### 1. *DISTRIBUTION TO RESPONDENTS'S GENDER WISE*



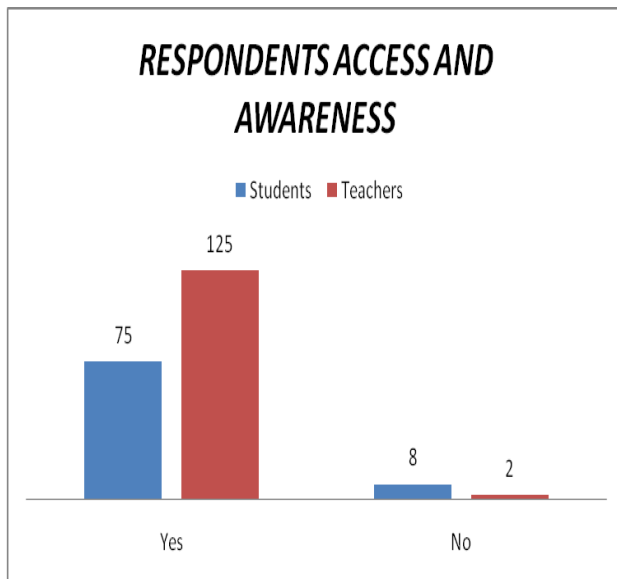
Graph 01 shows that 66.66% male respondents were participated and 33.33% female respondents are major part of the survey

## 2. FREQUENCY OF VISIT TO THE LIBRARY



Graph 02 that majority (56.19%) of respondents are visiting the Library and Access Daily. Subsequently Several Times in a week (33.33%), once in a week (10.47%), Once in a Month (09.04%), Occasionally (10.95%) respondents that are visiting Library.

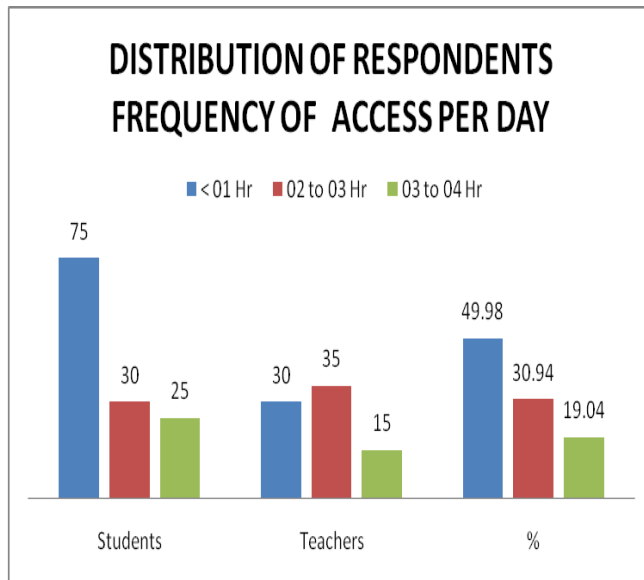
## 3. RESPONDENTS ACCESS AND AWARENESS



Graph 03 Shows that respondents have experience of Accessing NPTEL video and web courses. Majority of respondents Teachers 125(59.52%) have experience in NPTEL access No Access

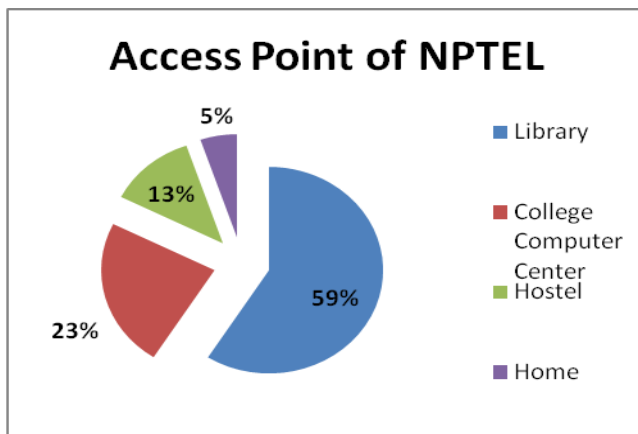
02(09.52%) respectively. Respondents of the Students 75 (35.71%) have yes remaining students 08 (03.80%) says no.

#### 4. TABLE DISTRIBUTION OF RESPONDENTS FREQUENCY OF ACCESS PER DAY



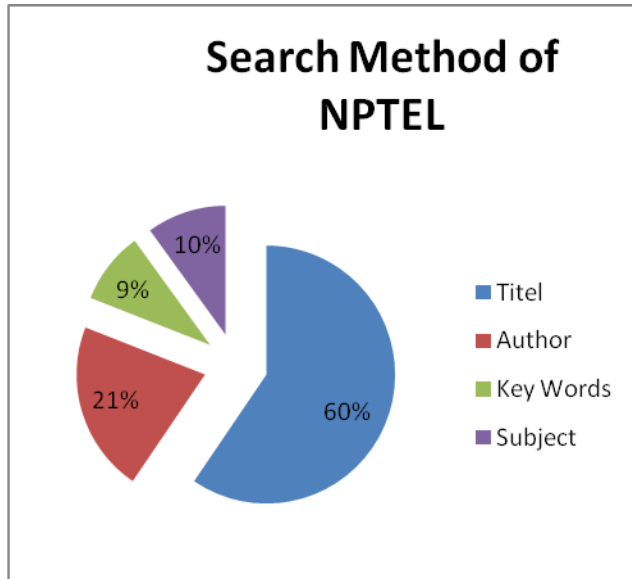
frequency of access NPTEL per Day. Majority (49.98%) of Respondents access Less than 01hour per day, The followed by (30.94%) respondents were accessed 02-03 hours daily,(19.04%) respondents were accessed 03-04 hours access. This study found that respondents were accessed less than 01hour daily for their learning process at remarkably because of student have cyclic library hour and laboratory period and faculty have leisure hours.

#### 5. Access Point of NPTEL



Majority of them (59.00%) using college library, College Computer Center (23.00%) and college Hostel (13.00%) and Home (05.00%). The data show that majority of user are accessing from their college Library. It is clearly said that library is to take part to provide information to the user.

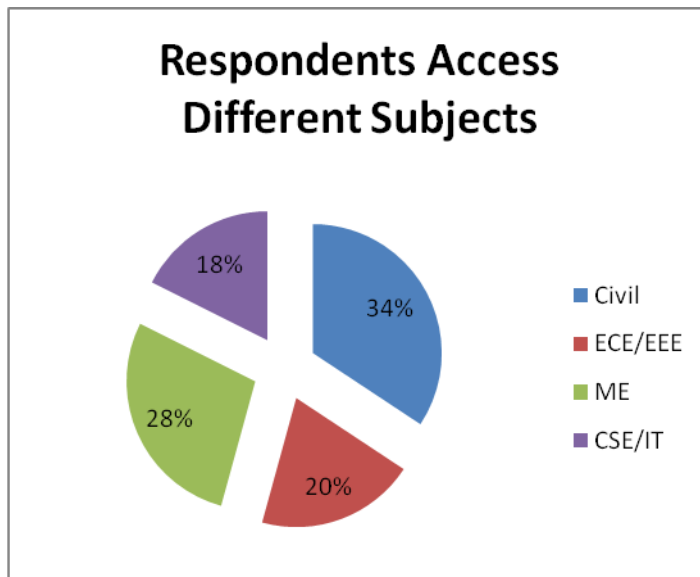
## 6. Search Method of NPTEL



Frequency of common search technique  
More respondents (60.00%) accessed NPTEL using subject search methods for getting information because of other parameter of search methods is not very familiar and this study prove that subject is known for common search technique for respondents because this e-content designed for teaching purpose subject wise. Subsequently using title search (60.00%), keyword search (09.00%) and some respondents (21.00%)

opined that access by author search method and subject search (10.00%). It clearly showed that subject is vital sources of search method in NPTEL video/web courses. At the same time author search method is using by respondents only due to NPTEL e-content author were not familiar and reach to the respondents.

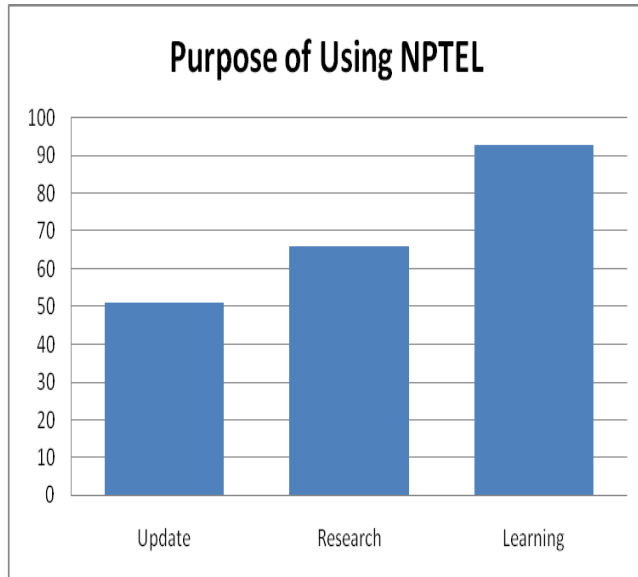
## 7. Respondents Access Different Subjects





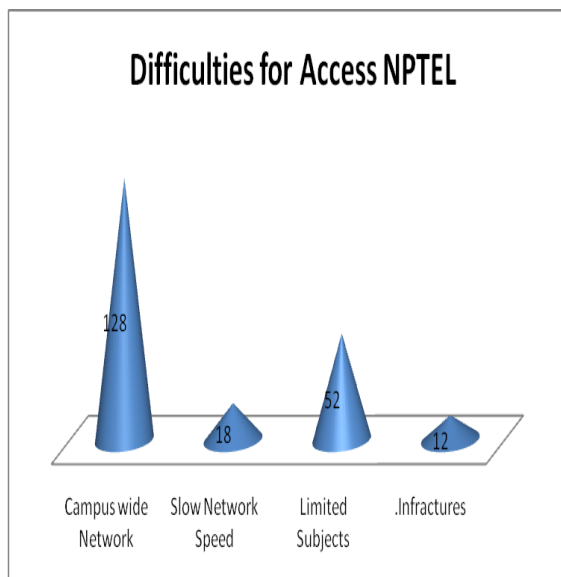
Respondents to access different Subjects Civil Engineering (39.00%), ECE/EEE (20.00%), Mechanical Engineering (32.00%), CSE/IT (09.00%)

## 8. Purpose of Using NPTEL



It is highlighted that more respondents 93 were accessed for Learning purpose especially faculty member are using for their class room reference. The next level is Research 66 is major role for students and faculty. This is followed by update knowledge 51.

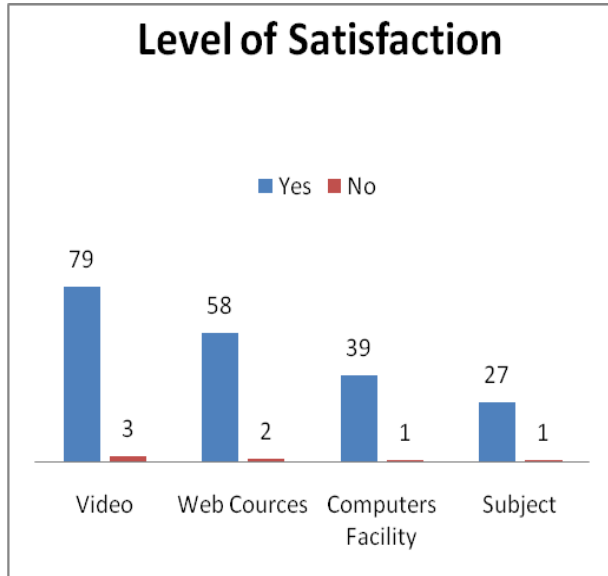
## 9. Difficulties for Access NPTEL



The study shows that respondents answered major problem for access in lack of campus wide network 128 and Wi-Fi connectivity provided for NPTEL video and web content. In this study noticed it is about some colleges have campus wide connection. Respondents opined that Difficulties for access followed by some respondents felt that they need some orientation class for how to access this e-content. Limited Subject 52 Slow Network speed 18 and infrastructure 12 respectively. It clearly

shows that respondents need awareness and training for NPTEL video and web courses.

## 10. Level of Satisfaction



Majority of respondents opinioned fully sanctified in Video courses, Web courses, Computer Facility, Availability of Subjects and Staff Cooperation. Few respondents opined that not satisfied mentioned. It is highlighted that this video and web courses (NPTEL) is to take part provide to electronic information to the user at maximum level of satisfaction.

## FINDING AND SUGGESTION

- It is found that majority of respondents are regular visitor of library in Kandula Group of Institutions Kadapa District.
- These studies found that more respondents were having experience in access NPTEL with the duration of < 01 Years.
- It is found that more respondents browsing point of NPTEL was from college Library and computer laboratory.
- This study clearly show that majority respondents are accessing NPTEL from Civil and Mechanical subjects and followed by computer science and information technology. Main Objectives of this study is to identify solution to the above difficulties to increase the access to the maximum level of end users. NPTEL digital content of information services should be strengthened by adding more video and web content in different science and engineering subject

available in all engineering college libraries. Information literacy and user education courses with emphasis

on retrieval software, tools and techniques of searching, etc., should be provided to all

Categories of the users. Adequate practical sessions should be included in such courses. High speed internet, more computer terminals, round the clock service of the libraries and computer centers, should be provided by the colleges.

## CONCLUSION

As libraries are built with ever-larger collections of electronic resources, finding ways to manage them efficiently becomes a major challenge. The number of electronic journals, citation databases, and full-text aggregations held by most libraries has grown rapidly. Managing these electronic resources involves providing the library's user with convenient ways to find and access them and providing library staff with the tools to keep track of them. Now a day's NPTEL is the new born of digital library collection, as a librarian and faculty should know all the technical parameter of this video and web courses to provide to the user effectively, this study will definitely focuses the evaluation of usage and road map for access successfully.

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