

USE AND AWARENESS OF WIRELESS NETWORK (Wi-Fi) BY STUDENTS OF NMIMS (Deemed To Be UNIVERSITY): A CASE STUDY

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Abstract:

This paper has provided overview of the use and awareness of wireless network (Wi-Fi) by students of Narsee Monjee Institute of Management studies – NMIMS (Deemed to be University). Students has access digital information through Wi-Fi it is very convenient to access information. Author has try to define level of Wi-Fi awareness and the problem face by the student in the Shirpur campus and their level of competence. The framework for user study was Wi-Fi awareness, connectivity difficulty, place of access, and speed usage in the NMIMS Shirpur campus student community. The result also identified the problem in Wi-Fi hotspots and coverage. The methodology has necessarily used mixed methods interview and questionnaire.

Keywords: *Wi-Fi, NMIMS, Wireless Network, Deemed University, Shirpur campus*

1. Introduction

Technology can be boon to the educational institute in teaching and learning. Wi-Fi is short for “wireless fidelity”. It is a wireless networking technology for PC’s and PDAs that allows multiple devices to share a single high-speed Internet connection. It can also be used to network a group of PCs without wireless¹. A hotspot is a location where Wi-Fi access to the internet is available. The NMIMS’s Mukesh Patel Central Library, Shirpur campus is committed to the mission of connecting library user with information. An increasingly popular way for users connect to the Internet through the use of portable devices, such as laptops, PDAs, and smart mobile phones. Wi-Fi hotspots offered free of charge in public places that anyone could use to access the internet (Powell Alison, 2008)² thereby allowing the students access all the digital information needs. Due to the popularity and growth of WLAN has also introduced a new challenge in the way corporate and educational institute networks are traditionally managed.

2. Brief About NMIMS

The Narsee Monjee Institute of Management Studies (NMIMS) (Deemed to be University) established in 1981 has over 13,000 students and 350 faculty members representing an eclectic mix of industry and academic experience in severed diverse domains

of knowledge. Apart from its main campus at Mumbai, NMIMS has off-campus centers at Shirpur (Maharashtra), Bangalore and Hyderabad. In 2003, NMIMS established eight schools, offering programs across various disciplines including Management Technology, Science, Pharmacy, Architecture and Commerce offering graduate, postgraduate and doctoral programs. Keeping in mind its concern for the society, NMIMS set up an off campus at Shirpur in 2007. This campus provides state-of-art infrastructure facilities to students while offering quality education. Spread over a land area of 50 acres, the campus comprises;

- Mukesh Patel School of Technology Management & Engineering (MPSTME)
- MPSTME's Centre for Textiles Function (CTF)
- School of Pharmacy & Technology Management (SPTM)

3. Mukesh Patel Central Library at Shirpur campus is a valuable resource for all students and faculty members. It has a rich collection of 28500 books, 17 various full text databases and 74,000 e-books from renowned publishers, NPTEL videos etc. Covering 45000 Sq ft area, it provides access to valuable resources in Engineering, Management, Pharmacy, Computer Science, and Business Management.

4. Scope and Limitations

The scope of the present study confines to only the SVKM's Narsee Monjee Institute of Management Studies (NMIMS) Deemed to be University at Shirpur Campus Students. User awareness study is in itself a diverse area and therefore the study is limited to a given selected students. Due to time limit, coverage on the users view and cost benefit analysis was not incorporated.

5. Objectives

The purpose of this study is to analyze the Use and awareness of Wireless Network (Wi-Fi) by Students of NMIMS (Deemed to be University) , Mukesh Patel Central Library, Shirpur campus . The objectives can be summarized as:

- To know the student use and awareness on availability of Wi-Fi connectivity in the NMIMS Deemed to be University, Shirpur campus;
- To know the minute difficulty face by student while using Wi-Fi.
- To Study the level of ICT knowledge of NMIMS Shirpur Campus Student.
- To know the speed of the Internet
- To study the preference of places.

6. Advantages of Wireless Network:

- No waiting for an available PC
- No enforced time limits
- Ability to download files
- Facility to save files permanently on your own device.
- Mobility that improve the productivity with access of information.
- Reduced cost of ownership
- Cost-Effective network setup

7. Disadvantages of Wireless Network:

- No printing services are available
- A Wi-Fi network is less secure than a wired network
- Signal strength may vary.

8. Wi-Fi Infrastructure in NMIMS’s MPTP, Shirpur Campus

The SVKM’s NMIMS (Deemed to be University) set up an off campus at Shirpur in 2007. This campus provides state-of-art infrastructure facilities to students while offering quality education. Spread over a land area of 50 acres. Most of the buildings are very close, they were grouped into one unit and the total campus into units. The list of the location is given below;

Location	Wi-Fi Technology
● Main Entrance ● Academic Area (A,B,C, and D Wings) ● M.P. Central Library ● Cafeteria ● Canteen ● Boys Hostel Old and New ● Girls Hostel ● Gym ● Workshop Building ● Open Ground Area	● The Indore AP's will be wall mounted using CISCO model 3700/ 2700/702. ● Used outdoor Antenna through 20 feet Pole with Device Box and Electrical Ground. ● 210 AP's and 2 outdoor AP's in which 210 are wall mounted and 2 are pole mounted. ● All the AP's model CISCO 3700/2700/702 are mounted inside Academic (A,B,C, and D wings) area and Hostels (Boys and Girls/ Staff Quarter / Guest House) ● 2 Outdoor AP's one mounted in the ground for 360⁰ signal coverage. ● AP's fixed on pole mount and the powered from nearest boys hostels block.

9. Previous Studies

A number of studies have been carried out on the use and awareness of Wi-Fi by students, teachers, and research scholars of universities and research organizations. The present study is an attempt to establish and exhibit the Use and awareness of Wireless Network (Wi-Fi) available in the NMIMS (Deemed to be University) at Shirpur Campus, Maharashtra , India. According to Sunny Consolvo and others (2010)³ described the Wi-Fi privacy ticker , which helps user become more aware of the unencrypted transmission of terms that they have identified as being important to them and outright prevents the unencrypted transmission of terms that they identify as being particularly sensitive. Through

the analysis of usage logs, surveys, and interview responses from a three-week field study with 17 participants, we showed that the Wi-Fi Privacy Ticker improved participants' awareness of the circumstances in which their personal information gets transmitted and that this heightened awareness contributed to changes in their behavior while on Wi-Fi. As discuss Zhou Xunjie and other (2010) Today, the Wi-Fi equipment is becoming increasingly popular, network wireless technology is definitely a trend. Compared with existing cable networks, wireless networks have many issues such as speed and security, but its flexibility is unmatched by cable network. Therefore, under the premise of the cable network has completed in the construction, university libraries set up a wireless network can be considered. At the beginning, we can choose wired and wireless mixed mode. We choose places where can use wireless Internet access, such as self-study rooms, recreational areas, to do pilot laying, and expand pilot places slowly. This allows the existing wired network without affecting, and creates the conditions for making full use of a wireless network and accumulates experience.

10. Methodology

In the Present study the Interview and questionnaire method has been chosen to collect information from the respondents. A well structured questionnaire covering all the facets of the topic has been prepared and distributed to selected students of NMIMS Deemed to be University, Shirpur Campus, and Maharashtra. Altogether 220 number of library users were

selected for the present study. The questionnaire was designed. Keeping in view evaluating the use and awareness the extent of Wi-Fi technology use amongst this target community.

11. Data Analysis

11.1 Questionnaire distributed and responded

Graph 1 : Questionnaire Distributed and Responded

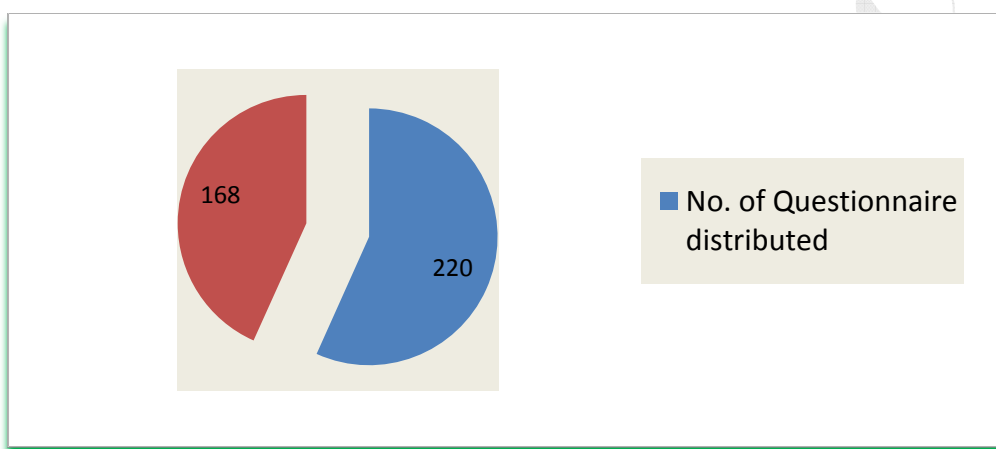


Table 1 : Questionnaire Distributed and Responded

Course	No. of Questionnaire distributed	No. of Responses received	%
B.Tech	100	76	76.00%
MBA-Tech	80	64	80.00%
M.Pharm	40	28	70.00%
Total	220	168	76.36%

Graph and Table No..1 Show that the Questionnaire were distributed to 220 respondents and out of which 168 (76.36%) respondents have responded

11.2 Course wise distribution with Gender Ratio:

Graph 2: Course wise distribution with gender ratio of the Users

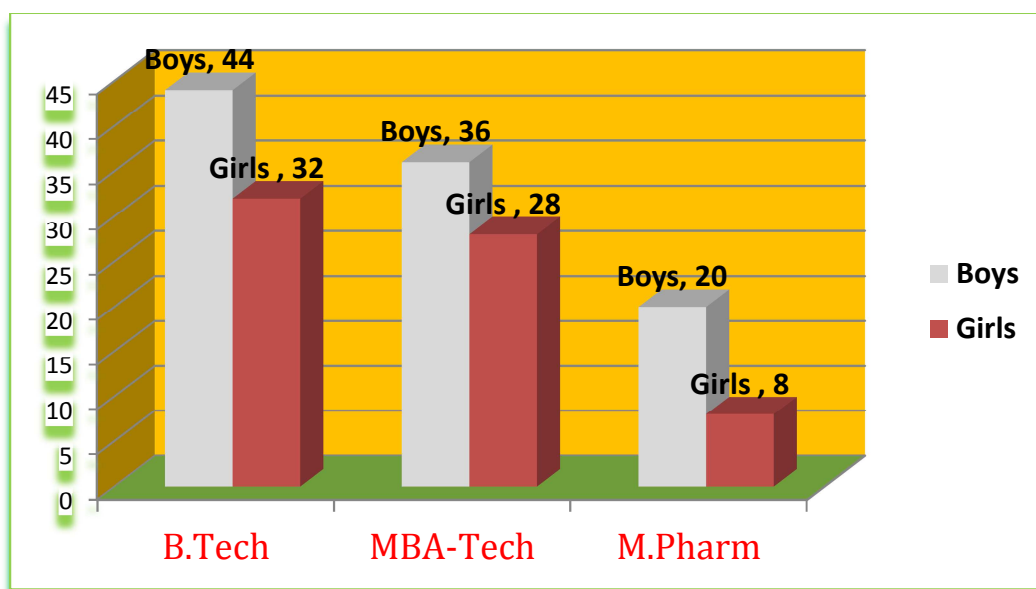


Table 2: Course wise distribution with gender ratio of the Users

Course	Boys	Girls	Total
B.Tech	44 (57.89%)	32 (42.10%)	76 (76.00%)
MBA-Tech	36 (56.25%)	28 (43.75%)	64 (80.00%)
M.Pharm	20 (71.40%)	8 (28.57%)	28 (70.00%)

Graph and Table 2 show that the B.Tech students responded maximum with 76 which constituted 44 boys and 32 girls. MBA-Tech on the other hand constituted the second highest with 64 which are 36 boys and 28 girls and the last M.Pharm students responded with 28 which constituted 20 boys and 8 girls.

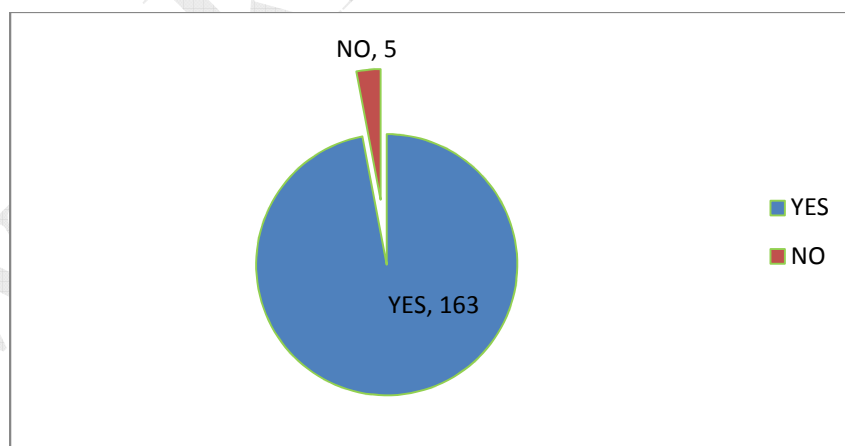
11.3 Awareness of Wi-Fi Facility in Shirpur Campus:

Graph and Table 3 show that the MBA Tech Students showed 100% awareness. It is was found that 97.36% of the B.Tech students were aware of the existing facility , 89.28% of the M.Pharm students were aware of the facility and 10.71% of the M.Pharm students and 0.03% of the B.Tech Student as not being aware of the facilities.

Table 3: Awareness of Wi-Fi facility in Shirpur Campus

Responds	B.Tech	%	MBA. Tech	%	M. Pharm	%
Yes	74	97.36	64	100%	25	89.28%
No	2	0.03%	0	0	3	10.71%

Graph 3: Awareness of Wi-Fi facility in Shirpur Campus



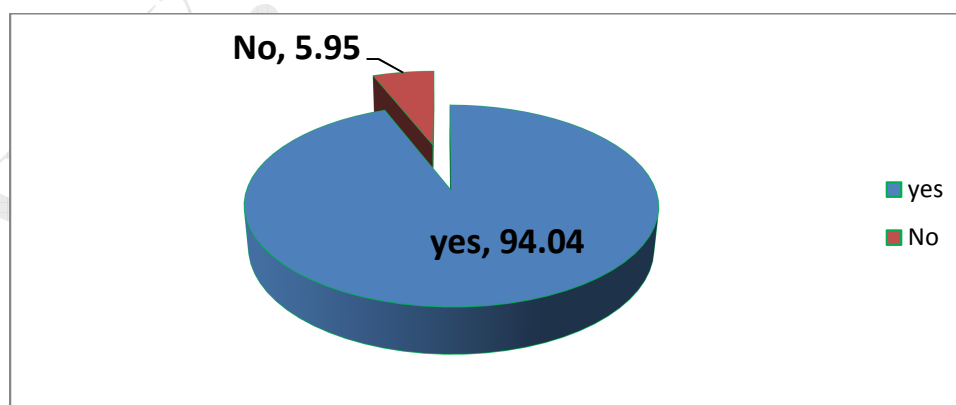
11.4 Usage of Wi-Fi Facility in Shirpur Campus:

The respondents were asked about usage of Wi-Fi facility in campus. Results are given in Table and Graph 4. It is found that 94.04% of the total respondents have use Wi-Fi and have access to be as 5.95% of them have never use the facility. It was found that MBA Tech student 95.31% to have highest used Wi-Fi ,94.73% of B.Tech student to have used and 85.71% of M.Pharm student to have used. Only 14.28% of M.Pharm, 5.26% of B.Tech and 3.12% of the MBA Tech student have responded negatively.

Table 4: Usage of Wi-Fi Facility in Shirpur Campus:

Responds	B.Tech	%	MBA. Tech	%	M.Pharm	%
Yes	72	94.73%	62	95.31%	24	85.71%
No	4	5.26%	2	3.12%	4	14.28%

Graph 4: Usage of Wi-Fi Facility in Shirpur Campus:



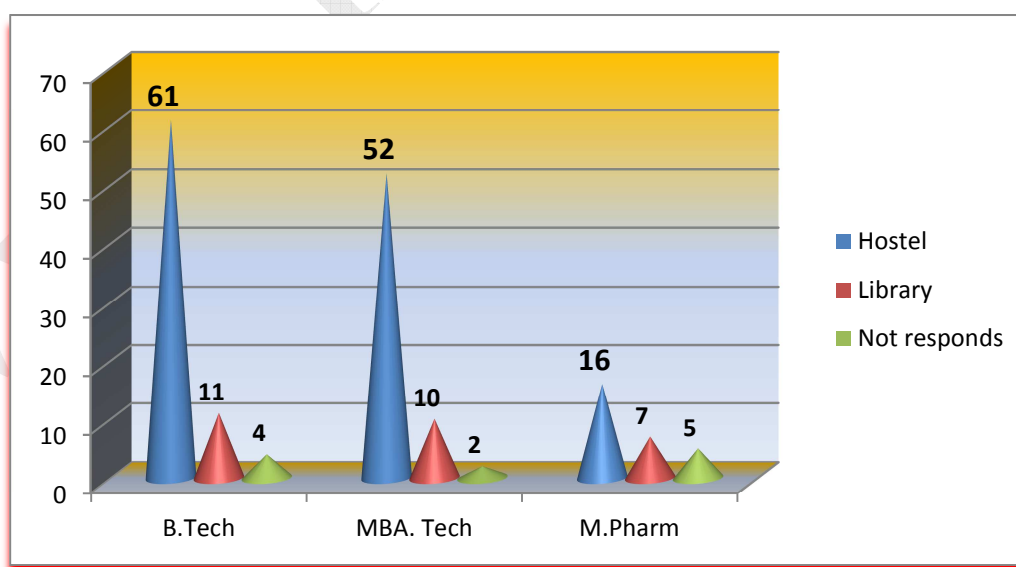
11.5 Place of Accessing Wi-Fi facility in Campus:

Respondents were asked about their place of Accessing Wi-Fi facility in the Campus. Table and Graph 5 presents the data about places of accessing Wi-Fi facility by students in the campus. It is found that MBA Tech student 81.25% , 80.26% of B.Tech and 57.14% of M.Pharm Student were places of accesses Wi-Fi in the residential hostel. Only 25% of M.Pharm ,15.62% MBA Tech and 14.47% of B.Tech students were access the Wi-Fi in the central Library. On the other hand 17.85% of M.Pharm, 5.26% B.Tech and 3.12% MBA Tech students had not responded.

Table 5 : Place of Accessing Wi-Fi facility in Campus

Place	B.Tech	%	MBA. Tech	%	M. Pharm	%
Hostel	61	80.26%	52	81.25%	16	57.14%
Central Library	11	14.47%	10	15.62%	7	25.00%
Not responds	4	5.26%	2	3.12%	5	17.85%

Graph 5 : Place of Accessing Wi-Fi facility in Campus



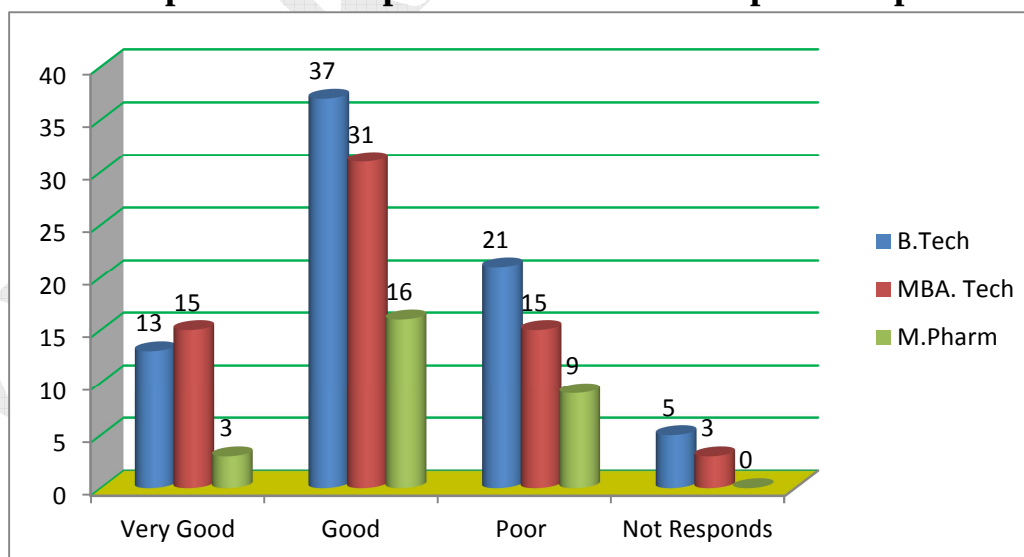
11.6 Wi-Fi speed in the MPTP Shirpur Campus:

Speed of Internet is very important to increase the usage. Higher the usage, higher is the benefit in accessing information. Table and Graph 6 show that only 17% of B.Tech, 23.43% MBA Tech and 10.71% of M.Pharm students felt that the speed is in a very good speed were as the maximum felt the speed to be an good , with 48.68% B.Tech , MBA Tech 48.44% and 57.14% of M.Pharm. B.Tech 27.63% , 23.43% of MA Tech and 0.32% of M.Pharm felt that is was poor. Only 6.57% oB.Tech and 4.68% of MBA Tech not responds.

Table 6 : Wi-Fi speed in the MPTP Shirpur Campus

Speed	B.Tech	%	MBA. Tech	%	M.Pharm	%
Very Good	13	17.10%	15	23.43%	3	10.71%
Good	37	48.68%	31	48.43%	16	57.14%
Poor	21	27.63%	15	23.43%	9	0.32%
Not Responds	5	6.57%	3	4.68%	0	0

Graph 6 : Wi-Fi speed in the MPTP Shirpur Campus



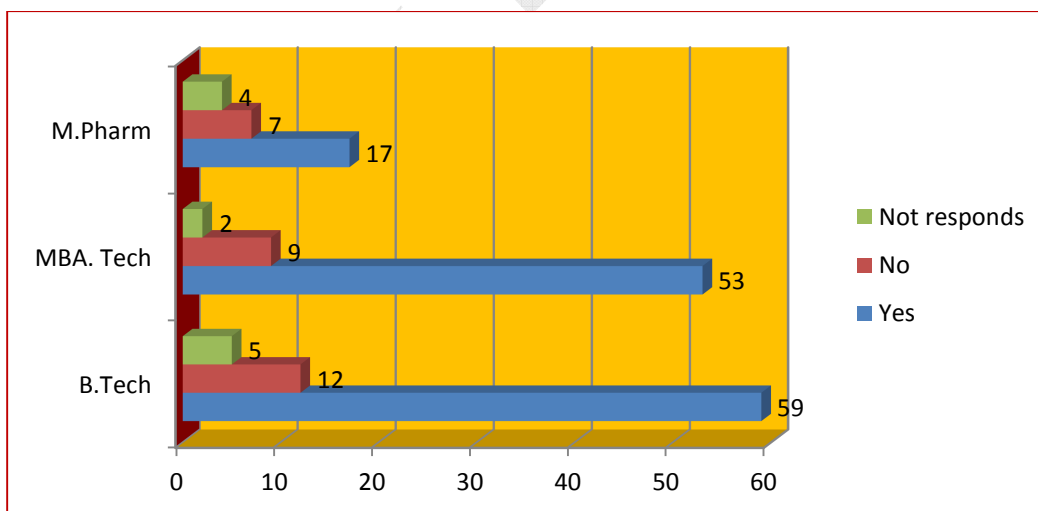
11.7 Difficulty face while surfing:

Students on the technical difficulty face while accessing on a Wi-Fi mention an interesting opinion of the present situation. The B.Tech with 77.63% , 82.81% MBA Tech and 60.71% of M.Pharm respondents felt that they indeed have difficulty while accessing Wi-Fi and 15.78% B.Tech, 14.06% of MBA Tech and 14.28% M.Pharm students felt that they don't have technical problem.

Table 7 : Difficulty face while surfing

Responds	B.Tech	%	MBA. Tech	%	M.Pharm	%
Yes	59	77.63%	53	82.81%	17	60.71%
No	12	15.78%	9	14.06%	7	25.00%
Not responds	5	6.57%	2	3.12%	4	14.28%

Graph 7: Difficulty face while surfing:



12. Conclusion and Suggestion:

The result of the present study suggests that there is a good level of Wi-Fi awareness among student. From sample population of 220 respondents and out of which 168 (76.36%) respondents have responded. B.Tech students responded maximum with 76 which constituted 44 boys and 32 girls. MBA-Tech on the other hand constituted the second highest with 64 which are 36 boys and 28 girls and the last M.Pharm students responded with 28 which constituted 20 boys and 8 girls. Recent trends are characterized by an increasingly mobile workforce and compliment organization. Most of these students productive learning occurs in groups discussion and away from their desks. Student's needs are not confine to a particular location but, far beyond their individual desktops. Wi-Fi fit well in such working condition, giving mobility to users and much-needed freedom in their search for information. Awareness should be conducted on the availability of the online resources of the deemed university. Orientation programme should be conducted for the first year students. Increase in the number of hotspot should be encouraged for better signal should be installed. High bandwidth should be provided for downloading information.

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