

**INFORMATION COMMUNICATION TECHNOLOGY UTILIZATION  
PATTERN BY UNIVERSITY TEACHERS**

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**ABSTRACT**

*University has three mandates: Teaching, Research and Extension. Scientists and Professors of State Universities are continuously engaged in teaching, research and extension activities. Professional growth of scientists and professors can be enhanced by the proper knowledge and use of new Information Communication technologies. ICT is an umbrella term which include all type of media for cognitive and psychomotor development. A research study was conducted among 40 scientists of GBPUA&T, Pantnagar to analyze their extent and pattern of utilization of ICT tools. The study revealed that most commonly used ICTs tools by the University teacher were mobile phone, computer, internet and e-mail. They used ICTs mainly for sending/receiving e-mail, professional networking and downloading information from the internet, writing research papers, updating teaching notes, preparing presentations and developing projects and tests for the students. The recommendations of research investigation are [1] there is an urgent need to strengthen the skills of using and handling ICTs and [2] There is also need of capacity building training courses and module for use of new and innovative systems for handling and use of ICTs.*

**Keywords:** ICTs, utilization pattern, teachers

**INTRODUCTION**

Information and communication technology (ICT) is an umbrella term and has positive impact on the development of Nation. Today ICTs has changed the relationship between teachers and students. According to Mudrak (2004), common Information Communication Technologies are: computer, video and cassette, projectors, internet, camera, television. ICT tools are necessary to make teaching and learning process more effective. Adequate technologies are necessary to enhance effective teaching and learning process. Drucker (2006) also said that the use of adequate and appropriate communication and information tools can lead to effective teaching and learning. He further explained that teaching is the process to impart knowledge to learners. Information and communication technology (ICTs) is the modern science of gathering, storing, manipulating, processing and communicating desired type of information in a specific environment. Computer technology and communication technology are the main supporting pillars of this technology and the impact of these two, in the information storage and dissemination is vital (Mahajan, 2002). G.B. Pant University of Agriculture & Technology, Pantnagar is a foremost

Agriculture University having fully operational computer labs, smart classroom in all the colleges. Although scientists of this University are using ICTs but researchable questions are [1] What types of ICTs they are using? [2] To what extent they are using Information Communication Technologies for improving their professional efficiency? The present study was undertaken among the Agricultural Scientists of GBPUA&T, Pantnagar with the following objective:

**OBJECTIVE**

To study the utilization pattern of Information Communication Technology

**METHODOLOGY**

A survey was carried out from June-July 2017 on University teachers of GBPUA&T, Pantnagar. A Simple Random Sampling was used for the study. Total 40 University teachers were selected for the study. The semi-structures interview schedule was developed to study the utilization pattern of ICTs.

**RESULTS AND DISCUSSION**

**Designation**

Data revealed that 42.5 per cent respondents were Professors followed by Associate Professor (30 per cent) and Assistant Professor (27.5 per cent).

**Table 1: Designation of the respondents n=40**

Sr. No.	Designation	No.	Per Cent
1	Assistant Professor	11	27.5
2	Associate Professor	12	30
3	Professor	17	42.5

**Mobile Phone utilization pattern**

**Table 2: Mobile utilization pattern & respondents n=40**

Sr. No.	Mobile Phone Utilization Pattern	No.	Per cent
1	<b>Mobile ownership</b>	40	100
2	<b>*Brand of mobile owned</b>		
a	Sony	06	30.0
b	Lenovo	11	27.5
c	Vivo	09	22.5
d	Nokia/Micromax	03	07.5
e	Motorola	06	15.0
f	Apple	02	05.0
g	Samsung	05	12.5
h	Redmi	02	05.0
3	<b>Type of Sim</b>		
a	Single	02	05.0
b	Double	37	92.5
4	<b>Mobile services being used</b>		
a	BSNL	10	25.0
b	Airtel	14	35.0
c	Vodafone	12	30.0
d	Idea	35	87.5
e	Jio	17	42.5
5	<b>Approximate monthly expenditure on mobile internet</b>		
a	Below 500	30	75.0
b.	500-1000	09	22.5
c.	Above 1000	01	02.5

\*\*Multiple responses were allowed

**Mobile Ownership**

Total 100 per cent scientists owned mobile phone. This is supported by the findings of Singh and Singh (2017) that majority of faculty members owned mobile phone.

**Brand of mobile owned**

Total 27.5 per cent scientists have Lenovo brand mobile phone followed by Vivo (22.5 per cent). Total 15 per cent scientists have Motorola phone followed by Samsung (12.5 per cent) and Nokia/Micromax (7.5 per cent). Only 5 per cent respondents have Apple and Redmi Mobile phone.

**Type of Sim:** Total 92.5 per cent respondents have double sim followed by single sim (5 per cent). **Mobile services being used:** Total 87.5 per cent respondents were using Idea services followed by Jio 42.5 per cent. Total 35 per cent respondents were using Airtel mobile service followed by Vodafone services (30 per cent).

**Approximate monthly expenditure on mobile phone**

Total 75 per cent respondents were spending ₹ 500 as monthly expenditure on mobile phone followed by ₹ 500-1000 by 22.5 per cent and above ₹ 1000 by 2.5 per cent.

**Internet Utilization Pattern**

**Frequency of Use of ICTs:** More than half per cent of the respondents (62.5 per cent) were using Internet daily followed by weekly 30 per cent and occasionally (5 per cent). It is fairly clear from the findings that the use of ICT in updating knowledge level and teaching skills by the University teachers was to a great extent. Moreover, ICT is helping teachers in setting innovative projects for students and generating computer online quiz, online test, online discussion forum.

**Extent of use of ICT for various purposes**

Total 97.5 per cent respondents were using ICT for data analysis and treatment and communicating with students followed by 92.5 per cent in writing research and conceptual papers. Most of the respondents (95 per cent) respondents were using Internet for acquiring and updating knowledge in the area of specialization followed by self improvement (90 per cent). More than half per cent of respondents (87.5 per cent) used Internet for teaching/professional competence followed by participation in seminars, workshop and conferences (72.5 per cent). Only 30 per cent respondents were using Internet for Sharing professional information and findings. Total 47.5 per cent respondents were using Internet for Research project work. Research finding are supported by Jones and Johnson (2005) that Marjory of faculty used internet to communicate with the students, particularly e-mail, enhance college faculty's communications with their students. Nearly all

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college faculty members surveyed reported using the Internet to communicate with their students (98 percent).

**Table 3: Internet utilization Pattern** n=40

Sr. No.	Internet Utilization Pattern	No.	Per cent
<b>A Frequency of Use of ICTs</b>			
1	Daily	25	62.5
2	Weekly	12	30.0
3	Occasionally	02	05.0
<b>B Extent of use of ICT</b>			
1	Writing research & conceptual papers	37	92.5
2	Participation in seminars, workshop & conferences	29	72.5
3	Sharing professional information & findings	12	30.0
4	Data analysis & treatment	39	97.5
5	Research project work	19	47.5
6	Teaching/ Professional competence	35	87.5
7	Acquiring and updating knowledge in the area of specialization	38	95.0
8	Self improvement	36	90.0
9	Communication with students	39	97.5

**Table 5: Purposes for using social media** n=40

Sr. No.	Statements	SA	A	Neither Agree Nor Disagree	D	SD
1	I use social media for communicating and interacting with friends.	05 (12.5)	26 (65)	02 (5)	04 (10)	03 (7.5)
2	I use social media for online learning.	32 (80)	7 (17.5)	01 (2.5)	0	0
3	I use social media for academic purposes.	23 (57.5)	11 (27.5)	5 (12.5)	0	0
4	I use social media for accepted communicating, mobilizing and organizing National or International level conferences, Seminars.	05 (12.5)	12 (30)	10 (25)	09 (22.5)	04 (10)
5	I use social media for updating profile information.	15 (37.5)	14 (35)	07 (17.5)	04 (10)	0

[SA=Strongly agree, A=Agree, D=Disagree SD= Strongly disagree]

### CONCLUSION

From the above findings, it can be concluded that all the scientists were using Information Communication Technologies to update notes, for writing research and conceptual papers and teaching/professional competence, participation in seminars, workshop and conferences, for acquiring and updating knowledge in the area of specialization,

**Use of Social Media:** Majority of respondents (87.5 per cent) were using Whatsapp followed by facebook (30 per cent), Linked in (27.5 per cent) and research gate (22.5 per cent). Only 12.5 per respondents were using twitter followed by You Tube (20 per cent).

**Table 4: Use of social media** n=40

Sr. No.	Social Media	No.	Per Centage
1	Facebook	12	30
2	Twitter	05	12.5
3	You tube	08	20.0
4	WhatsApp	35	87.5
5	Research Gate	09	22.5
6	Linked In	11	27.5

### Purposes for using social media

Total 65 per cent respondents were agree with the statement that “they use social media for communicating and interacting with friends”. Total 80 per cent respondents were agree with the statement that “they were using social media for online learning” followed by the statement “they used social media for academic purposes” (57.5 per cent). Total 30 per cent respondents used social media for accepted communicating, mobilizing and National or International level conferences, Seminars followed by 37.5 per cent respondents who were using social media for updating profile information.

for self improvement etc. ICT is helping teachers in setting innovative projects for students and generating computer online quiz, online test, online discussion forum. Most of the respondents were using Internet for Sharing professional information and findings, for Research project work. University teachers were using social media as whatsapp, facebook etc. Most of the scientists were agree with the statement that they use social media for communicating and

interacting with friends, for online learning, for academic purposes, for accepted communicating, mobilizing and organizing National and International seminars. Based on findings, it can also be concluded that ICT is an innovative tool for teaching and learning. To encourage more use of ICTs, there is a need to strengthen the existing facilities and infrastructure. There is also an urgent need to change traditional classrooms into smart classrooms. There is also a need to develop modules for the use of new and innovative technologies to make teaching learning process more effective.

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